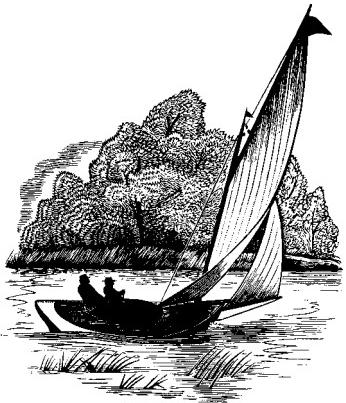


**Special Features This Issue**  
Shoal Waters - Cedar Key Great Again  
A Sailing Trip - Melonseed Sailboat Build  
Philadelphia Factory One-Design  
Elements of Planking

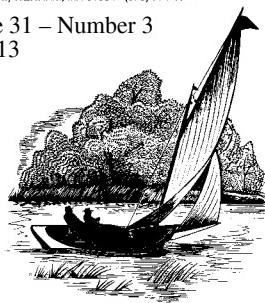


# messing about in **BOATS**

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## Commentary...

My comments here in the June issue about the *Bounty* situation and the human and financial costs of rescuing mariners who acted foolishly from danger encountered, often far at sea, attracted some interesting responses. Of special interest was a 1934 editorial in the then yachting magazine, *The Rudder*, sent on by Bob LaVertue of the Springfield Fan Centerboard Co with the laconic comment, “The *Bounty* was nothing new!” Read it verbatim on the opposite page.

I was struck with the part where the Editor cautions would-be mariners “not to undertake a ‘round the world’ cruise unless you are **financially able to bear the entire burden and not depend on sweet charity for your very precarious living.**” (*Emphasis mine—Ed*)

Our “Lee Rail” columnist C. Henry Depew, came up with the numbers involved in these rescues:

“Coast Guard Reimbursable Standard Rates”  
Outside Government

Cutters = \$2,848 - \$18,900/hour
Boats = \$1,261 - \$5,871/hour
Aircraft = \$11,216 - \$22,916/hour

“These are only the hard costs associated with operating the various assets. It does not include man hours or money tied to the training of the personnel. It might be good for us to remember that the S&R operations of the Coast Guard we know today grew out of the early efforts to provide assistance to commercial boats/crews along our coastline. Most aid to navigation and related safety endeavors were to promote safe passage of commercial ships and their cargos.”

Perhaps not unaware of its pertinence, Hugh Ware had included the following in this month’s “Beyond the Horizon:”

### “Head Shaker”

“Can you teach an old sea dog a new trick? It may be time to do so. A Coast Guard helicopter rescued a 72-year-old Brit after he requested a medevac from his 24' sailboat *Erma* about 70 miles east of Kitty Hawk, North Carolina. He told the chopper crew that he had been unconscious for seven hours and believed that he had fallen and hit his head. **It was not his first rescue!** In 2000 he had set out on a solo sail across the Atlantic from the UK. A broken rudder ended that trip and he had to be rescued and lost his sailboat. He tried again in 2002 but got caught in a hurricane. He broke three ribs, was rescued and lost his sailboat. In 2005 he tried again, this time making it to Brazil, but then a storm, a lost mast and finally a sinking off Guyana led to another rescue and a third lost sailboat. Now the loss of *Erma* makes four.”

**Bob Hicks, Editor**

Finally long time friend and rescuer of antique and classic motorboats, Boyd Mef-ferd, sent on a full discussion of what he's encountered in this vein even in that tight community of mariners, see “Caribbee... Through Rose Colored Glasses and Other Cautionary Tales,” on the following pages. He focused on the questionable integrity of the *Bounty*'s hull as reported in the Coast Guard inquiry. Here is an excerpt which nicely sums this up:

“Being a good owner or captain requires a strong sense of responsibility. I might enjoy having a beer with the late captain of the *Bounty* or the man who made the run for the Golden Gate (see his essay), but when it comes to the person I'd want to go to sea with, caution rules. Everyone who is responsible for a vessel and her occupants, whether she is a large old yacht or a small vintage runabout, needs to make structural integrity Job #1. If there is any doubt, haul the boat out, fix her or sell her to someone equipped to do the job, but don't take risks you may someday regret.”

In our society today we are surrounded with safety blankets, we pay local taxes for community fire, police and accident rescues from hazardous situations that suddenly arise in everyday life and take these for granted. But we also can carry at personal expense insurance to cover other situations not community related. If I am run down on my bicycle in my town (being foolish or not) the fire department EMTs arrive as first responders at town expense. But my subsequent ambulance trip to the hospital and all that follows is my financial responsibility, insured or otherwise.

The cost to the town is minimal compared to what it costs to rescue someone at sea and in the latter case those rescued get an enormous free ride from our society. Some sailors have even profited from their experience by writing books and doing lecture tours, the income from which they keep for themselves (to buy the next boat?) with nary a nod in the direction of those who risked life and spent enormous sums of money to save them.

Perhaps there ought to be some sort of compulsory rescue insurance. To indulge ashore in our cars, motorcycles, motorhomes, aircraft, etc, we are required to have insurance. The “rescue” of a broken down boat can now be covered by insurance to avoid that major cost. How about the people on the boat? Innocent or stupid, why should they get a free ride at out collective expense?

## On the Cover...

Small craft came together again in May at Cedar Key, Florida, with our cover photo by Lenna Young Andrews showing sail, paddle and power coexisting in quiet surroundings. For more of Lenna's photography visit her blogspot at: [creativelenna.blogspot.com](http://creativelenna.blogspot.com).

## What Happened on the Bounty Isn't New!

(Submitted by Bob LaVertue, Springfield Fan Centerboard Co.)

# THE RUDDER

*The Magazine for Yachtsmen*



## EDITORIAL

**T**HE apparent success of a relatively few 'round-the-world cruises in small sailing boats has started the deluge. Farm boys in Iowa, dairy hands in New York State, fruit growers in Florida and hundreds of others, equally incompetent, have suddenly decided to emulate William Albert Robinson, Harry Pidgeon and other successful cruisers.

The would-be navigators are an innocent lot. They nearly all admit that they have no money and are going to depend on gifts from the natives and—fishing. Hardly any of them know navigation and one bright youth decided that he would build a speed boat and stay right behind the Europa all the way across the Atlantic so he would not have to bother with navigation. He forgot all about where he was going to carry the necessary fuel for a boat fast enough to stay in sight of the queen of the Atlantic.

There ought to be some way to stop them. You just can't discourage these men. They all declare that they will thrive on hardship, starvation and the kindred woes that frequently befall ill-advised attempts of this kind. One woman even wanted to pilot an express cruiser across the Atlantic, beating all existing records. The cost was the main factor and we believe that she is still looking for an "angel."

These cruises prove nothing and give no pleasure to anyone—not even the intrepid skipper and his crew. Most of them haven't the faintest conception of what it is all about and they buy up old hulks that are entirely unseaworthy and then expect all the rest of us to help them over the financial bumps. The depression has developed a new species of tramp—the marine panhandler who takes his living where he can get it, from unsuspecting ship captains at sea and from gullible yachtsmen when in port. It's almost a regular racket and threatens to become even worse.

Some of these Magellans expect THE RUDDER to subsidize them. One or two have become quite insistent that we publish their stories in serial form and thus pay their expenses on a grand sight seeing tour.

For the benefit of any of these would-be mariners who may chance to read this, the answer is, *don't do it*. Don't even think of it until you are thoroughly conversant with the situation and have had plenty of practical experience. When you have gained this knowledge, you will be wise enough not to undertake a 'round-the-world cruise unless you are financially able to bear the entire burden and not depend on sweet charity for your very precarious living. Just because a few web-footed individuals have accomplished the seemingly impossible, is no reason why the whole country should suddenly take to sea in little boats.

JULY 1934

Safety of aging vessels is a concern that hangs heavy over the entire vintage boat hobby. In his May 2013 *MAIB*, Bob Hicks wrote about the loss of the replica ship *Bounty* during Hurricane Sandy. That accident could have been much worse with two lost and thirteen saved, but it is only one of a long list of accidents that never should have happened.

For the last 32 years I've made my living selling and restoring antique runabouts, so selling safety is my job. This has changed substantially over these years. Many of the boats I sold when I began were barely 25 years old, and now they are going on 60. Most companies ended wooden runabout production in 1968, so the newest of what we have to work with are 45 years old. Maintenance is very important, and use and storage each play a part, but ultimately wooden boats do have finite lives. There are factions in the Antique and Classic Boat Society who seem to believe that wood does not deteriorate and lose strength, but people who take boats apart on a regular basis usually aren't buying this argument. Eventually the alternative to spending a substantial amount of time or money, usually both, is the chain saw, and this is where the emotions get fired up.

I'm a subscriber to *Bone Yard Boats*, a small magazine dedicated to saving boats that would otherwise be lost, a fine cause. Still I cringe when I see boats listed that are at the end of their first useful life, or beyond, and would require thousands of hours and tens of thousands of dollars for material to make them really safe and seaworthy again. For most of us who are not rich, we like to be on the side of those who find a way to enjoy the rich man's yacht on the poor man's budget, but with some of the restorations I've seen, corners are ultimately and understandably cut, resulting in a frail craft that can still be used, but is no match for bad luck or bad weather.

Some people just seem to like old things, and it's hard to tell where nostalgia ends and romance begins. For most it's a blend without distinction, and usually satisfying in the extreme until the old item comes up short of its intended use. For sensible rich people, and lucky poor people, antique boating is a joy. Many agree that most new boats are unbelievably ugly and often cheaply built, and the lure of quality products from the heyday of yachting is hard to resist. When yachts are truly thoroughly restored and brought back to their strength and glory, they are wonders to behold. I've been a judge at the Mystic Seaport Rendezvous and my head spins at the incredible boats I've seen over the years.

When poor people struggle and come up short, or rich people who can afford the restoration don't want to pay for it, then the word "safety" creeps back into the mix, and life has to be more important than preservation, nostalgia, or romance. I know from personal experience that nostalgia and romance are powerful drugs and few of us are completely immune. I'm convinced that my weakness is in my DNA. As a kid in Missouri I made scrapbooks with black and white photos cut out of *Yachting*. My favorite was Carleton Mitchell's 57' yawl *Caribbee*. Then I was given *Passage East*, his book about sailing her in the 1952 Trans-Atlantic Race.

My father was a midwesterner who became a blue water sailor, went around the world on a 45' ketch, and then went back to the midwest to make a living and raise a family. Vacation time was special with a focus on getting back to the ocean. In 1955 he char-

## Caribbee

### Through Rose Colored Glasses and Other Cautionary Tales

By Boyd Mefferd  
Boyd's Boats, Canton, CT

tered a schooner and we spent a week cruising in the Bahamas. Because of weather we pushed ahead our return to Nassau by one day, arriving very late at night, long after I'd found my bunk and fallen asleep. The marina had told our skipper that they had no place for him until the next day, so he talked on the radio and made arrangements to raft up with a yacht captained by a friend of his. I woke up in the morning, went on deck, and there was *Caribbee*. Instead of waking up and finding that it had all been a dream, I woke up in a dream come true. I quickly explained my interest and was welcomed aboard and told to go wherever I wanted, for as long as I wanted. The owner was not on board and things were casual. You know where I spent that lucky day!

Now fast forward forty years to the mid-'90s and a phone conversation with a runabout customer from Palm Beach. He said his interest in wooden boats came from sailing with a friend who had an old wooden sailboat. I'd heard stories like this before, but I almost dropped the phone when he said that this boat had quite a history and was named *Caribbee*. I think from that point on I did all the talking. My father and I were invited to join my customer and a volunteer crew the next time I got to Florida. I've missed lots of opportunities in my life, but not this one. The invitation was extended to two more Florida visits. In my office I have photos of both myself and my dad at *Caribbee*'s helm.

If you've stayed with me through this nostalgic journey, now it does become relevant to the subject matter at hand. Sailing *Caribbee* required a substantial crew. Mitchell raced with seven other-world class sailors, and with running backstays and heavy gear to tend. Getting an adequate crew together was sometimes a problem. Then her owner found a recently built, all teak 60' boat for sale, just back from an around the world trip. She had fixed back stays, roller furling, and electric winches, all set up to be easily sailed by just three or four people. She was purchased and *Caribbee* was for sale.

After years of surveying, advising people to look carefully, and telling them to expect to spend much more in time, money, or both than any original restoration estimate, the lure of *Caribbee* made me forget everything I knew. I was immediately trying to figure out a way to borrow enough money to buy her. It seemed that fate had brought us together several different times and this was my destiny. It didn't matter that she was now 60 years old and had spent a lot of time in the tropics. We didn't nip at the edge of a hurricane like the *Bounty* but had driven her hard with full sail in the Florida Gulf Stream chop. How much work could she possibly need?

Fortunately for me, and even more fortunate for *Caribbee*, she was quickly snapped up by a Seattle software millionaire and shipped west. My dream was intact, it just didn't have an ugly last chapter. Then a year or so later I saw an article about a major restoration and it was *Caribbee* again. A few small planned repairs had led to more, and is so

often the case with a 60 year old boat, soon she was totally apart with most of her planking removed and frames replaced. Her purchase price was just the tip of the iceberg, not a problem for her new owner, but I would have been one of those poor people struggling with a restoration I could not afford to do correctly and completely. If there had been some way to turn the clock ahead and see *Caribbee* so taken apart, would we still have driven her so hard in the Gulf Stream? Fortunately it all turned out well and that's a question that won't have to be answered. But not every vintage boat returns from the ocean intact.

For a number of years we used a wonderful, careful trucker who took runabouts to the west coast. This was just fill-in business for him, however, and his real expertise was oversized loads, up to 16' high and 16' wide. He was a little more expensive than some, and I remember selling a boat to a prominent San Francisco surgeon who found a trucker with a bad reputation who would do the job cheaper. When I questioned his decision the surgeon told me that "trucking is trucking". My mind was working that day and I came right back with, "and they tell me that surgery is surgery." Our guy got the job.

Because of his reputation for moving large wooden boats without damage, our trucker was contacted about hauling two vintage motor yachts in the 65' range from San Diego to the San Francisco Bay area. He had the equipment and could do the job, but his other prior commitments prevented his meeting the owner's tight schedule. The boats were for a charter business and there were already charter dates lined up. Instead, two teams of captains and crews of three were hired, and because it was winter, plans were made to scoot north between storms. The interval was not quite long enough, however, and both encountered very heavy weather as they neared San Francisco.

Perhaps she was the weaker of the two hulls, or maybe the more conservative of the captains, but one team threw in the towel early, abandoned ship, and were rescued. The other tried to run on into the Golden Gate and by the time they too declared an emergency the Coast Guard had grounded all aircraft. Both the second boat and her crew were lost. It was a case of two boats that may have passed survey and would have probably served well for years more in sheltered water, but had no business being out in a Pacific storm. In a perverse way this set of accidents helped the oversize trucking business and our guy soon found enough work on the West Coast and never came to New England again.

The moral of the story is that even if she is relatively intact, an old wooden boat is not safe for the same trips she made when she was new. The only way to make her so is to rebuild her as, was the case with *Caribbee*, but not every old boat has a millionaire owner. In the runabout business the conditions and possible consequences are not usually so severe, but the basic idea is the same. It all starts with knowing what you have.

Knowing what you have leads me to a story about disclosure. Fairly early in my boat selling career I acted as the agent in the purchase of a pre-war Chris-Craft race boat from a very successful personal injury trial lawyer. He was one of the most intense personalities I'd ever encountered and, for some reason, he'd taken a liking to me and was going to give me some free advice. He had a history of chewing up "buyer beware" situations and

told me that I should always be thinking in terms of "seller beware" because there were people like him lurking. It wouldn't make as good a song, but his tune was, "accentuate the negative" and made me sign a three-page acceptance of known defects in his little boat. He advised me to always do some version of the same, and to never even think about glossing over problems or hiding defects. Boating might be fun, but going to court over a boat wouldn't be.

One of this lawyer's most lucrative cases had involved another 65' vintage motor yacht, this time on the East Coast, which had been sold by the former commodore of a prestigious yacht club (knowledgeable seller) to an unsuspecting buyer who just fell in love with the look of the boat. The yachtsman had encountered trouble selling because the boat flunked survey after survey. The purchaser may not have even known that marine surveyors were available. The boat went down off Cape Ann in a fall storm. Fortunately someone was fishing nearby and all hands were plucked out of the water after only a few minutes.

The purchaser may not have known surveyors, but he did know lawyers, and hired the race boat seller to approach the former commodore. The lawyer was impressed by the commodore, recognizing him as a blatant elitist, arrogant and condescending, just the kind of person who alienated juries. The commodore insisted that the boat had been sold as-is and scornfully rejected a settlement offer. The lawyer rounded up all the previous

surveys and filed. As predicted, the jury was put off by the commodore and by the fact that he would let someone innocently go off in a questionable boat to what could have been death for those on board. The lawyer said that the former commodore was a wealthy man with a huge umbrella policy but by the time it was done it was all gone and part of the judgment remained unsatisfied. With no loss of life or permanent injury this verdict might seem extreme, but the lawyer said that it was the kind of thing that can happen in court, and I've never forgotten the lesson.

I just read a piece on "safety" in the ACBS magazine, *Rudder*. It mentioned the fire extinguisher and flares, and could have suggested checking that the webbing on the deck chairs wasn't worn. There was, however, no mention of the basic integrity of the hull. It is apparently assumed that everyone's boat is OK for its intended use. From all too recent experience, I know that simply isn't true. Safety, in my opinion, begins in the shop with a thorough examination, primarily the bottom. No boat was ever lost because the decks weren't quite perfect, but refinished decks, new upholstery and chrome and the like are our most requested restorations. Several of our customers finally saw the light when their beloved boats sank at their moorings, which is the most fortunate place for boats to sink.

Full bottom replacements are expensive and in almost all cases, I think that piecemeal work, a plank here or there, is a waste of time and material. It just doesn't make sense to fasten new wood to elderly wood that is on its

way out. Often people look at vintage wooden boats with rose colored glasses, claiming that they only need one or two planks. That really means that one or two planks are really gross, and the rest not far behind. If a plank in a good bottom is damaged in an accident, then by all means replace it, but if age and deterioration are the culprits, we usually subscribe to all or nothing.

The trick is to be able to convert an emotional attraction to a boat into a rational plan. People who start out all rational don't seem to get too far. Some want to spend only up to what they see as the fair market value of the boat, and this seldom completes the job. Being in over your head is part of being in love, and if you are not in love, chances are you don't have what it takes to successfully own and restore a vintage boat. At some point, however, the glasses have to come off in order to have a long, hard look at what you are trying to accomplish and where you plan to go with your completed boat.

Being a good owner or captain requires a strong sense of responsibility. I might enjoy having a beer with the late captain of the *Bounty* or the man who made the run for the Golden Gate, but when it comes to the person I'd want to go to sea with, caution rules. Everyone who is responsible for a vessel and her occupants, whether she is a large old yacht or a small vintage runabout, needs to make structural integrity Job #1. If there is any doubt, haul the boat out, fix her or sell her to someone equipped to do the job, but don't take risks you may someday regret.

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—Bob

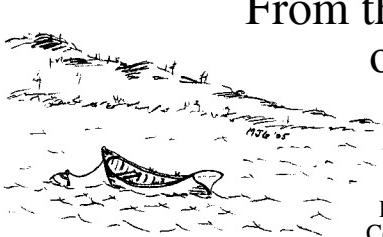
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### From the Journals of Constant Waterman

By Matthew Goldman  
[Constantwaterman.com](http://Constantwaterman.com)

Went out yesterday to play on the water and discovered a 10kt breeze lurking off the port of New London. Problem was, it couldn't decide on what direction to aim. Firstly, it backed about 30°, then veered ahead, then backed again, then nearly died altogether. I tried to ascend the Thames River, between New London and Groton. I scarcely made it as far as Ledge Light when the wind veered some more and blew straight down the river.

Well, I thought, perhaps I'll just head home. They've just reactivated the water on the piers and it wouldn't hurt to wash down *MoonWind* after a winter of indolence and grime. But the wind veered some more and I had to head out to sea a point or two more than I wanted. I decided to confer with Father Aeolus, lord of the winds. We agreed that if he let me run home parallel to the shore, I'd promise not to spill hot air as usual. Being glib, I fooled the poor old fellow once again. He backed the wind about 90°, and I had a broad reach the whole way back to Noank.

Just when I was feeling good, I entered West Cove and put the helm down and dropped the mainsail into her lazy jacks. I can sail into my slip with just my Genny, I reflected. Lord knows I need the practice. But I tilted the outboard into the drink and fired it up, just for assurance's sake. Nothing like a bit of assurance these days of rampant litigiousness. After the motor warmed up, I turned it off.

I was sprawled in the cockpit, wafting toward the channel with the Genny drawing; making two knots and enjoying the mild weather, when I noticed the boom. Difficult not to notice something two feet over my head. But it had a twist to it that didn't seem quite right.

My boat has roller reefing: a worm gear assembly just abaft the gooseneck. I slip a winch onto the jackshaft, remove the track stop, slack the halyard, and crank the handle. The mainsail rolls up on the slowly revolving boom. Unhooking the boom vang often makes a difference. So does disconnecting the lazy jacks. Unless it's blowing thirty knots, it's seldom more trouble than folding my fractious elephant until he fits in my pocket.

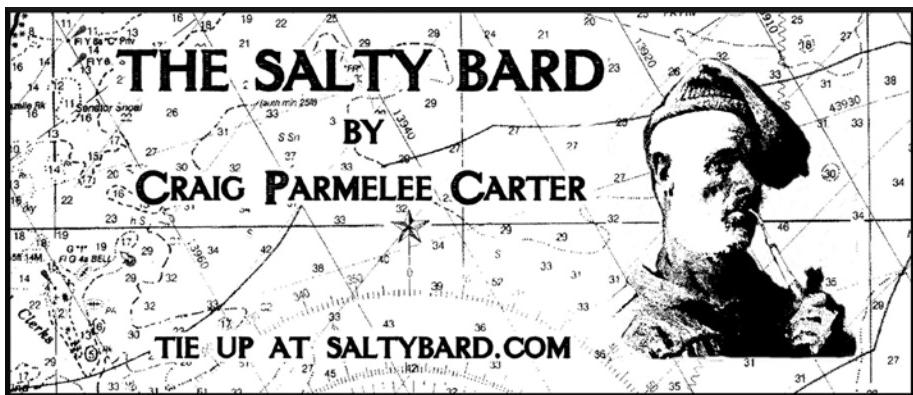
Now the boom looked as though I hadn't quite left it true last time I furled it. It was rotated several degrees. The advantage of a worm gear is, the driven pinion can never rotate unless I activate the worm, i.e., crank the handle. But the boom had been true with the mainsail all afternoon, and the handle was busily napping in its locker.

The explanation intruded itself on that dullness I call my mind. The clevis on the gooseneck had torn away from the slide; the weld had all but parted. My boom was dangling by a tenth of its normal metal. I nearly imagined what might have happened had it parted in a serious wind with *MoonWind* surging though 5' seas, heeled over 40°. I often amuse myself in such a fashion.

I tiptoed forward, dropped the Genny, and sedately motored the last quarter mile to my slip. There I removed the sail, the vang, the mainsheet, and the boom. As small things tend to amuse me, I made it a point to drop a little shackle over the side. I carried the boom to my truck and lashed it securely.

Then I spent time in rigging spring lines across the slip. A stern nor'easter is on the books for tomorrow. We're due to get gusts of 50 knots and, even with the breakwater and the shelter of the shore, it never hurts to be a bit prepared. I keep a 100' coil of 3/4" towline stowed in my locker. As no other boat was sharing my slip, I ran three lengths to the 12" cleats on the opposite finger pier and tautened them until they kept *MoonWind* from striking the pier alongside. Then I doubled up all my usual lines, applied all the chafing gear I had on board, and adjusted my fenders. The fenders now seemed superfluous, but it seemed a bit foolish to leave them in the locker.

A pound of care, converted to not caring if she pounds, is that peace of mind I earn for spending those ounces of prevention. If a hurricane comes, the piers may all go west. For a gentle breeze of 50 knots, a modicum of common sense suffices.



## The Docks

In summertime I find it luring, to keep my boat out on a mooring,  
but when the opportunity knocks, I like to bring her to the docks.

Even if it's just for water, there's a reason that I dodger.  
The people are a funny brew, I walk the docks and spot a few.

There they are, the fishermen; their boats are now just coming in.  
Out since dawn, they've paid their share, strapped into the fighting chair.  
The gulls are swarming in their wake, don't get too close, for goodness sake.  
With bucket loads of bass and blue, their boats are smelling like the loo.

The marina babe on the yacht's foredeck, will make the captain bend his neck.  
Later, when the day is through, she'll join him for a drink or two.  
She'll have no spouse, but boyfriends many, she'll never need to earn a penny.  
When the captain sees he's been a fool, she'll find another at the pool.

Old timer sits and smokes his pipe, at first you'll think he's talking tripe,  
but chat with him and you'll soon see, that he's as wise as wise can be.  
His wit is sharp and health is fine, for someone who is eighty-nine.  
He may forget the last he ate, but not that hurricane of '38!

The dock-dwellers are always there, their boats are very nice.  
And though you'll never ask for it, they'll give you their advice.  
They never seem to leave the docks, which seems a little queer.  
They sit around and shoot the breeze and drink a lot of beer.

The racers are a different breed, it's tin they want, not beer.  
And if they're on the starboard tack you'd best, by God, stay clear!  
The dude revs up his go-fast boat, cares not how it offends,  
120 decibels will never earn him friends.

And here's the record setter; he's talking to his child.  
I ask him what it's all about and see his eyes turn wild.  
He acknowledges it's risky, but his little girl is bold.  
To be the first to round the globe before she's eight years old!

The cruisers are my favorites, for they can go in style.  
With all the gear they take along, they could stay out a while.  
But there never seems to be the time, it's just a two-week cruise.  
And when there's no more space below they fill the bilge with booze.

To own a boat, some people say, you really must be mad.  
I'm inclined to disagree; it's really not that bad.  
Of all the people that you'll meet, they're way beyond compare.  
If you hang around the docks you're sure to find me there.

## Don Backe is Gone



The Board of Directors for Chesapeake Region Accessible Boating (CRAB) sadly announce the passing of their friend and the organization's founder, Don Backe. He died on April 12, at Gilcrest Hospice in Columbia, Maryland, after a long illness.

Backe founded CRAB in 1991 after a serious auto accident caused him to lose the use of his legs. He had been a lifelong educator and sailor and, after the accident, he strove to find ways to help others experience the thrill of the sailing, especially for physically and/or developmentally challenged individuals.

"The sailing community and CRAB family will forever feel the tremendous void Don Backe leaves," said Lance Hinrichs, President of the Board of Directors of CRAB and a longtime CRAB sailor.

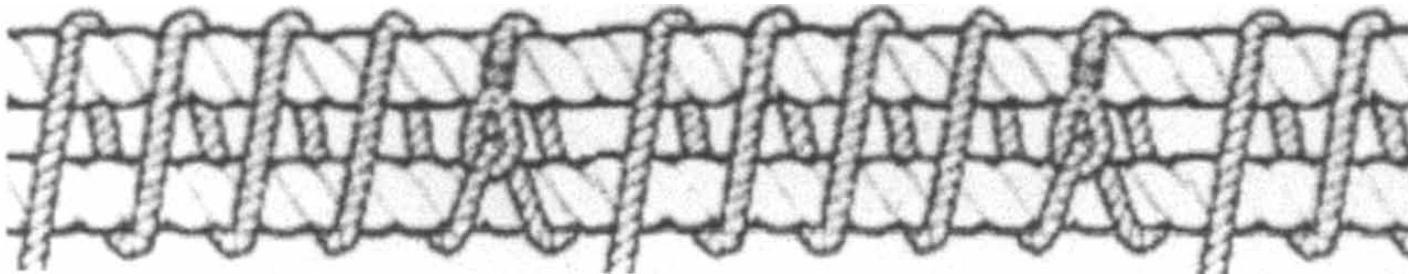
"Don was a genuinely selfless leader who combined his love of sailing and sense of public service to start CRAB more than 20 years ago. His work has touched the lives of so many people in such a profound way."

Hinrichs added, "CRAB will strive every day to ensure his legacy continues to bring the joy of sailing on the Chesapeake to more people, people who would otherwise not have the opportunity."

Don learned to sail as a young man in Germany, where he lived with his family who were in the US State Department's Foreign Service. He owned sailboats and enjoyed the thrill of competitive sailing over the next 30 years until his auto accident.

Beginning in 1989, Don competed in several Independence Cup National Sailors with Disabilities Championships, a few as skipper and once as World Disabled Sailors championship crew.

He was also a finalist in the 1995 Paralympic Trials in Marblehead, Massachusetts. Also, in 1995 he was awarded US Sailing's Marty Luray trophy for contributions to community sailing. Most recently, he was the winner of the 2013 US Sailing and Old Pulteney Maritime Heroes Award.





# You write to us about...

## Activities & Events...

### Summer Things to do at The Apprenticeshop

Grownups & Kids: Build Your Own Remote Control Model Racing Sloop. The T37 RC Racing Sloop is a fully sanctioned one design class in the American Model Yachting Association (AMYA). This is a great project for parents/grandparents and their children and can include midday picnics on the A-Shop beach and a dip in the bay. Workshop dates are Monday, July 15 - Thursday, July 18.

Create Your Own Half Hull Model of Whaleboat. Renowned model boatbuilder Rob Eddy (pictured here) of Camden leads this program to build half-hull models of the Leonard whaleboat. The Leonard is the full-scale whaleboat recently replicated by The Apprenticeshop for the *Charles W. Morgan* at Mystic Seaport. Workshop spans four evenings, Tuesdays & Thursdays July 23, 25, 30 and August 1.

Please call (207)594-1800 or email info@apprenticeshop.org for more information.

### Summer Things to do at The Chesapeake Bay Maritime Museum

CBMM's Friday Open Boat Shop remaining programs take place on the evenings of July 26, August 9, and August 23, and invite members of the public to work on a small woodworking project of their own, or to bring ideas for a longer term project. Participants will receive the advice and guidance of an experienced shipwright and woodworker, and can expect assistance with CBMM's machinery and tools, plans, measurements, and the execution of their small-scale project. These program runs from 5:30-8:30pm and cost \$20 per session for CBMM members and \$30 per session for non-members. Participants must be 16 or older, unless accompanied by an adult.

On Friday, July 12, a Bronze Casting Demonstration will be held in the boatyard from 10am-12noon. Participants will listen to Mariner's Museum Conservator Will Hoffman as he discusses the casting replication project of one of the *USS Monitor*'s artifacts, including iron and bronze parts. Following the discussion, Hoffman and nationally-renowned sculpture artist and Shepherd University professor Christian Benefiel will cast a replication of an oarlock from the *Monitor* in bronze using traditional pattern and molding methods. The cost for the demonstration is \$30 for members and \$50 for non-members.

From July 18 through July 21, a four-day bronze casting workshop with Will Hoffman and Christian Benefiel will have participants learning the intricacies of bronze casting, including creating molds, working the sand and furnace, and pouring the hot metal. Participants take home a working

knowledge of casting metal and their own creation cast in bronze. Held from 9am to 4pm on all four days, the workshop for ages 16 and up is \$160 for members and \$200 for non-members, plus the cost of materials (approximately \$100).

On August 8 from 5-6pm, the public is invited to the boat shop to see a lathe demonstration. A lathe is a machine tool that rotates the wooden work piece on its axis to perform various operations such as cutting, sanding, knurling, drilling, and more. The cost is \$10 for members, and \$25 for non-members.

All these workshops require pre-registration by contacting Helen Van Fleet at (410) 745-4941. All classes have limited participation, and take place in or around CBMM's boatshop in St. Michaels, MD. Visit [www.cbmm.org](http://www.cbmm.org) for more information.

### 31st Antique & Classic Boat Festival

We want to remind readers of *Messing About in Boats* that the 31st annual Antique and Classic Boat Festival is fast approaching, the dates this year are August 24-25 and the location will be Brewer Hawthorne Cove Marina in Salem MA.

As readers who have attended in the past will know, the Festival is unique. Since boats are not required to be in 'show' condition, the Festival includes a much wider range of vessels than would normally be seen. For almost every taste and interest there will be boats that capture ones attention.

There are both professional and owner maintained beauties that glisten with polished bronze and sparkling varnish. In contrast are the boats whose owners strive for low maintenance and are out on the water at every opportunity. There are boats that are rowed, boats that are sailed, and those with 'iron wind'. We usually have between 40-50 boats, most in the water, a few landside.

Visitors are welcome to board the boats. Check out the accommodations on a 40 footer, chat with an owner about storage solutions on a 21 footer, find out where some unique hardware came from, or, just do a little dreaming!! Landside, there are crafts and other vendors, old time band music and children's activities.

The Festival is an affordable and fun family event. Admission is a \$5 donation for adults, kids under 12 are free. Those interested in entering a boat can contact Pat at 617-666-8530 or [patwells@earthlink.net](mailto:patwells@earthlink.net).

To get a flavor of the Festival readers can check out our website: <http://www.by-the-sea.com/bacbfestival/>. And visit us on Facebook for frequent updates at <https://www.facebook.com/pages/Antique-Classic-Boat-Festival-Salem-MA/114710855205919>

## Adventures & Experiences...

### Joy Trumped Caution

By George Haecker  
The wann Spring wind  
belied the cold below  
where steel splashed waves  
sent spindrift flying  
over the grey water

while we slammed from tack to tack  
a capsie might be fatal  
but it was Spring  
the boat new and  
for father and son  
joy trumped caution

### Not Bad for an Ol' Gal

My 50 year old MacVay Falcon (16' cuddy sloop) won "Best in Show" in April at the Apalachicola Antique & Classic Boat Show. Not bad for an ol' gal.

Joseph Haley III, Tallahassee, FL

### The Values of Quirkiness

Many thanks for your commentary on the values of quirkiness in the April issue. The reprint of the long ago "Three Very Different Cruises" took place in the beginning days of our Center for Wooden Boats when we were then introducing our community to our new way of learning about its maritime heritage. Those early CWB workshops were filled with hippy adults and homeless kids.

Our staff was myself, a half-time "administrative assistant", about 75 skilled and reliable volunteers and a host of in-kind donors. By just asking we received topsoil from a cemetery, Jersey blocks for anchors, and construction of our Pavilion and Oarhouse.

We stuck to our mission and vision. Our learn-by-doing programs have been woven into our community fabric from preschoolers to living icons. We now have three campuses. We have helped dozens of other communities have their own direct experience maritime museums.

The photo below shows our Boat Building being towed to our South Union lake site in 1983.

Dick Wagner, The Center for Wooden Boats, Seattle, WA, [www.cwb.org](http://www.cwb.org)

## Information of Interest...

### SAR Reimbursement Issue Not New

Your comments in your June "Commentary" about reimbursement by sailors for Coast Guard Search and Rescue (S&R) costs is not new. This question has been raised before without resolution. I have purchased AAA towing and emergency service as well



as BOATUS towing. While I have used the AAA service now and then, thus far I have been fortunate not to need the BOATUS service, as most of the people in my area help each other out as needed.

There are two "costs" associated with Coast Guard operations. There is the cost of assets and personnel and there is the operational cost when a S&R activity takes place. I have no idea as to the actual cost of a S&R operation although I have seen all kinds of estimates. However, according to the latest available information from the Coast Guard for "outside reimbursable costs", it is an expensive operation:

US Coast Guard Commandant  
Instruction 7310.1N (March 28, 2012)  
"Coast Guard Reimbursable Standard Rates"  
Outside Government

Cutters = \$2,848 - \$18,900/hour

Boats = \$1,261 - \$5,871/hour

Aircraft = \$11,216 - \$22,916/hour

These are only the hard costs associated with operating the various assets. It does not include man-hours or money tied to the training of the personnel. For more information, I suggest downloading and reading the entire document.

It might be good for us to remember that the S&R operations of the Coast Guard we know today grew out of the early efforts to provide assistance to commercial boats/crews along our coastline. Most aid to navigation and related safety endeavors were to promote safe passage of commercial ships and their cargos.

C. Henry Depew, Tallahassee FL

### Missing Stamp

In our Lighthouse Stamps feature in the June issue the New London stamp got left out so here it is:



### New London Harbor

Connecticut's oldest and tallest lighthouse, New London Harbor Lighthouse, was originally established in 1761. Financed by a lottery held by the Connecticut colonial legislature, the first lighthouse was a 64' tower that included a wooden lantern. The tower

developed a crack and was replaced in 1801 by the present lighthouse. New London Harbor was one of the earliest American lighthouses with a flashing light, added in 1801 to distinguish it from the lights of nearby homes.

The octagonal brownstone structure is 89' high and retains its fourth-order Fresnel lens, which was installed in 1857. The lighthouse was automated in 1912, and the keeper's house was sold. In 1990 it was listed on the National Register of Historic Places. Though the keeper's house is privately owned, the New London Maritime Society acquired the lighthouse in 2010.

## Information Wanted...

### About that Dromedille

George Swanson's article in the May issue, "Smart Skippers Shouldn't Sleep Naked", was interesting for not just the story, but the unusual boat. He identifies it as a 17' Dromedille, cuddy cabin, made in Canada. A modest gunkholer cruiser got my interest, but also described as ski boat?

Not easy to get information online, as Dromedille is a design, and not a manufacturer. The designer seems to be Bror With, a Norwegian engineer of some note. He has a Wikipedia article [http://en.wikipedia.org/wiki/Bror\\_With](http://en.wikipedia.org/wiki/Bror_With) detailing his life. The article mentions the Dromedille boat design as "combining the advantages of both displacement and planning hulls". The boats have been made in both Norway and Canada, but the Canadian boats seem to have been built by a string of companies that are now closed. Any readers have other information?

Folks online seem to either love or hate the boats. The hulls seen in pictures seems to combine a relatively modest flat planing section with round bilges. There are open skiffs and dinghies, center console, and cuddy cabin boats pictured. The cuddy cabin boats are 17' or 20', and have canvas cockpit tents that look fairly roomy for the size of the boat. Sounds interesting to me; anyone out there with experience? All I'm going on is internet observations.

John Nystrom, Peru, IN

## Opinions...

### Some Lessons

#### From The Wreck of the Yeraz 2

I read with interest Peter Brennan's article on destruction of his cruising sailboat, *Yeraz 2*, in the February issue. Truly this was a tragedy and I admire Peter's strength in sharing it with your readers. Peter says his mistake was not getting another bearing on the entrance, but then pats himself on the back for having adequate insurance coverage. However, he missed some other lessons his experience confirmed:

If warned that an inlet is "un-navigable", maybe think real hard about entering for a pleasure jaunt.

If not 100% certain of a rocky entrance in an area with a reasonably large tidal range, don't enter it on an ebbing tide.

If you've cheated the devil many times before, don't become complacent.

Don't assume a professional tow service is sensible. *Yeraz 2* was effectively destroyed by the tow boat trying to pull her off of rocks when she was in no immediate danger and a

survey hadn't been done to see where exactly she was hung up. Possibly at Peter's urging, and despite an ebbing tide, two attempts were made at towing this boat off of the rocks. Wiggling and grinding on a rock pinnacle were responsible for the large hole that destroyed the boat. No doubt the fixed price paid by the insurance company for towing influenced the tow boat's captain in trying to take the quick, easy way out.

Consider when paying for marine insurance premiums that they have to have rates high enough to cover such ineptitude.

I have made very bad decisions resulting in boat damage during my 50 years of experience on the water. Almost all of them were directly attributable to being in some kind of hurry that in retrospect was really nothing. Fortunately for me and my shipmates, none of these resulted in damage approaching what happened to *Yeraz 2*. Thank goodness no one was hurt.

Wayne Thayer, Crownsville, MD, Waynethayer0@gmail.com

### Bad Boating on the Hudson



An iceboating friend of ours has a free publication called *Boating on the Hudson*, a more commercially (as in marinas, restaurants, etc) oriented mag of what to do and see on the river. I sent him this photo suggesting he should start a new publication called *Bad Boating on the Hudson* and use it as the cover shot. They were actually able to chainsaw around it just before ice out & save it, temporarily. One bad owner is all it takes for a wooden boat, it's now sitting on a beach rotting away.

Dock Shuter, Glasco, NY

## Projects...

### Adding a New Chapter

*MAIB* has helped me in adding a new chapter to my life. After several decades of subscribing I was spurred by the article, "Bug Out Boats", by Dave Zeigler. I bought Trilobate plans from him and started to seriously research the possibility of building a pocket cruiser.

This led to designs from Bolger, Leyden and Michalak. My final choice is a Jim Michalak design. Now committed to this project I started assembling the building platform this spring, the same day that I renewed my *MAIB* subscription.

Many thanks for your publication and may we continue our partnership for many years to come.

Jean Jacques d'Aquin, Montrose, CO

## Introduction

My original aim was to sail around the world but three things prevented me from doing so; I never had the money, I never had the time and I had a wife and four children. Sailing the wide oceans, visiting the palm fringed atolls and sweltering tropic ports where the jungle drops down the mountain-side to kiss the warm seas remains a pastime for winter evenings in the comfort of an arm-chair and with an endless number of books on the subject.

Before retirement, and thanks to an understanding wife, I did for a dozen or so weekends a year find time enough to sail as far as I liked, provided I was back in good time to go to work on Monday morning. Did this mean just pottering about in the river, with all my year's hopes pinned on fine weather for the precious summer holiday, or could I, year in and year out, still find some real sailing?

Did I have to race to get some sort of interest, challenge and excitement? Did my modest means compel me to crew on larger craft to enjoy offshore and night sailing? The answer is set out in this recollection of my sailing years, and I hope illustrates the wonderful adventure playground that lays just a couple of hours from our crowded roads and railway stations.

The maze of beautiful rivers that stretch deep into the heart of the Suffolk, Kent and Essex countryside, and the fascinating triangle of sandbank infested waters between Aldeburgh, Ramsgate and Canvey Island, might almost have been deliberately designed for the small shoal draft sailing cruiser.

A voyage round the Whitaker Beacon at the northeastern edge of Foulness Sand may not compare with the adrenalin boost of a thrash round Cape Horn, but careful research proves that a man drowned off Southend Pier is just as dead as one drowned off the tip of South America. In spite of the rescue services and modern electronic aids and gimmicks, the welfare state ends at the seawall.

They may have abolished capital punishment for murdering old ladies but the death penalty is still the ultimate price for bad seamanship. Once you cast off on a Friday evening for 50 hours of freedom and adventure, you are just as much on your own as any skipper in the world, from Tierra del Fuego to Tollesbury.

Make no mistake, the Thames Estuary has always been a busy waterway. The Roman corn galleys used it in the days when we exported grain. Until the advent of the motor lorry, most coastal villages and hamlets survived to the heartbeat of the twice daily high tides. Every bank and creek had a name and was thus etched into history.

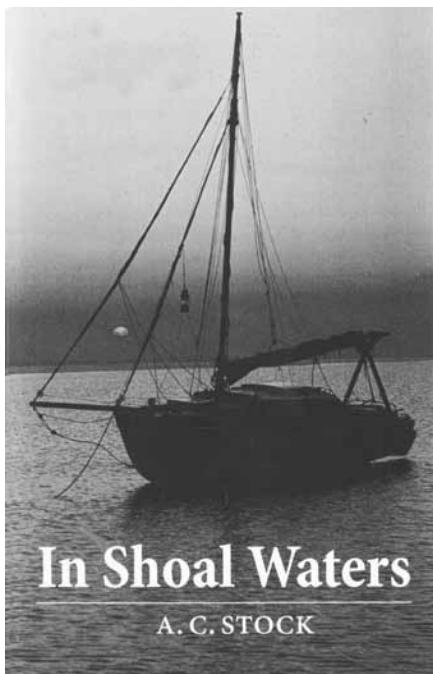
Men have traded this area since the beginning of recorded history. The routes they used, their shortcuts, the tricks of working the wind and tide, still exist for the modern yachtsman to test his skill and the ability of his craft.

On the other hand, the Thames Estuary is essentially a safe area. You can make mistakes and ground on a sandbank for a few hours and, providing the conditions are not too bad, the consequence might be only a delayed return to your mooring. A similar mistake on other rockier parts of the British coast could mean the loss of vessel and crew.

Remember the first time that the original pirate broadcaster Radio Caroline broke her mooring and blew ashore near Wal-

## In Shoal Waters

By A.C. Stock  
Lodestar Books  
[www.lodestarbooks.com](http://www.lodestarbooks.com)  
ISBN 978-1-907206-18-4



## In Shoal Waters

A.C. STOCK

### Editor's Note

This is a delightful book that captures the essence of the adventure and appreciation of nature that small boat sailing provides. While set in and around the Thames Estuary in England with its high (18'+) tides and miles of sand/mudflats, the author's lifetime experiences and observations apply anywhere anyone undertakes such small boat sailing. Herewith the author's "Introduction" and a sample chapter for your reading pleasure. From this you can decide for yourself if you'd enjoy the rest of the book.

ton-on-Naze in an easterly gale? She got off later under her own steam and went to Holland for repairs. There are few other parts of the coast where such a craft would have got away that lightly.

The weekend sailor may risk drowning but he probably still has less chances of perishing than if he were driving on one of Britain's overcrowded roads. The sheer exhilaration of sailing back to one's mooring after a successful trip, whether it having been an Atlantic crossing or the first rounding of a buoy just a few miles outside the river, is a pleasure that has to be experienced.

Some years ago Prince Charles, the Prince of Wales asked, "Can't we do something to make mankind feel grand?" The common love of boats, the fear of the sea and the camaraderie it engenders among all those who partake in this unique pastime is probably the best answer. Many of our hospital beds are occupied by patients who are mentally sick. How many more of us would join them if it were not for the healing effects of a brief taste of the tranquility among the creeks and marshes under the wide open skies and on the eternally restless tides of the outer Thames Estuary? In

an increasingly cockeyed world, navigating a small boat is one of the few things left that continues to make sense.

### Sample Chapter 14: Lighters on the Sand

It was the day of the full moon and the spring ebb pouring out from the River Crouch left the entrance buoys struggling and swirling in the racing tide, which swept northeast towards the tall north sector cardinal Sunken Buxey Buoy two miles away. The only boat in sight, a little green gaff cutter, had enjoyed a swift trip downstream from Burnham and now swung to port round the spherical yellow buoy marking the entrance to the notoriously shallow Ray Sand Channel (the Rays'n) between the mile-wide mudflats fringing the shore and the extensive Buxey Sand.

I checked my watch, reached for the sounding cane and began to swing it like a walking stick, more as a ritual than in fear of grounding for I have been making this trip regularly for over 50 years and knew that there would be water enough for another hour yet. One hundred years ago Frank Cowper, well known for his yachting guides of Great Britain, discovered 12' here at low water springs for his book *Sailing Tours*. We draw a mere 12" with the plate up, and back in 1963 when *Shoal Waters* was first launched we could get through at any stage of the tide.

Now the southern end dries four to five feet and is getting shallower each year as the tail of the Buxey Sand extends out southwest towards the coast at Shore Ends, leaving the famous great iron seamount, the Buxey Beacon, isolated in a lonely bay. For several minutes less and less of the cane disappeared beneath the water but then it began to get deeper again until, thankfully, the bottom was comfortably out of reach.

The elaborate fleur de lis on the points card of the ridiculously large brass binnacle compass settled opposite the lubber's line. This was a chance to reach into the cabin and get the kettle going for a brew before it was time to look out for the next mark, a tall iron post topped with two large black cones base to base to indicate that it is on the eastern side of one of the four wrecks placed on the sands as targets when it was a wartime bombing range.

If the 80lb iron plate, three-quarters of the way down, whispered it would be a case of just lifting it a little and easing over to starboard into slightly deeper water. By the time the eastern sector beacon drew abeam, a second mark on the northeastern part of the wreck would be visible against the Mersea shore. All I needed to do was to log the time spent sailing between the two beacons.

A similar time on the same bearing would bring me to the northern fringe of St Peter's flats and the deep water of the outer River Blackwater, well inside the Bench Head Buoy. Once there, I would alter course northwest to find a snug berth for the night among the creeks at either West Mersea or Bradwell, thus catching up on the sleep lost when I left my drying mooring at Heybridge some 14 hours earlier.

This left me plenty of time to watch the late September sun set over the low seawall as flocks of seabirds forsook the wheat stubbles ashore to feed on the teeming invertebrates and crustacea that lived in the mud and sand exposed by the rapidly retreating tide. No villages grace the ten miles of wild coastline along the eastern edge of the Dengie

Hundred. Even the local farms cower a mile or so inland, safe from the winter fury of the southern North Sea.

I swung the powerful glasses northeast and confirmed that the black triangle two miles away was the Buxey Beacon, now a cardinal mark instead of the bare pole with a T-shaped topmark made famous by those doyens of East Coast yachting writers, Francis B. Cooke and Maurice Griffiths. The Buxey once marked the western edge of the sand and was used by sailing barges cutting over the Ridge and up the Rays'n instead of taking the longer route through the Spitway between the Buxey Sands.

Now it stands neglected, except for an occasional adventurous yachtsman on a courtesy call. In the far distance could be seen the white sails of yachts taking the deeper route between these two popular rivers. Gazing shorewards again, I sat up with quite a start. A series of dark oblong shapes broke the gentle line of the seawall as it shimmered in the golden autumn haze. As they drew abeam, careful examination showed them to be lighters, the sort once seen in their hundreds on the London river.

There were ten of them, parallel to the shore and several hundred yards out from the seawall. The jib of a crane loomed above the hull at the northern end. This was ridiculous, nothing ever happened on this bit of the coast! The Roman legions left their fort at Othona early in the fifth century and Bishop Cedd built the little chapel that still carries his name in the gateway 200 years later.

Sailing barges loaded stacks of hay loft high on deck for London's hungry draft horses, and just before the Second World War the RAF established a firing and bombing range here, of which four wrecks are the only remnants. Lighters! A crane! This riddle of the sand called for further investigation as soon as time and tide served.

On Friday morning a fortnight later, *Shoal Waters* was ready to leave her mooring at Heybridge as the incoming tide lifted her at half flood. The lighters were 12 miles away and dried an hour or two after high water. With a good breeze it would have been possible to reach them before they dried, but the wind stayed light and fickle. And when the lighters came into view as I rounded Sales Point, I could see they were already dry. My little boat worked her way south between the northern wrecks until she came to rest sitting comfortably on the mud, like a large duck to wait for the night tide. At least it was an ideal opportunity for an afternoon nap.

When I woke it was already dark. A brilliant moon shone out of the clear skies giving the mud and sand a magic lustre. The bones of the northeast wreck, standing out black against the loom of Clacton's lights, invited me out for an evening stroll. I remembered to put up the anchor light before deserting the cosy warmth of the cabin for the eerie silence beyond.

The steady thud of my boots on the firm sand was at times interrupted with cheerful splashes as my feet hit the shallow pools. Now and then a startled seabird fluttered up into the darkness and the inevitable cormorant sentries guarding the top of the beacon flapped away resentfully as I reached the wreck. This had once been a wooden minesweeper, the hull recognisable well into the sixties but, under the twice daily assault of the hungry seas, it was now rapidly disintegrating.

Shorewards, the black hulls of the lighters stood out against the grey of the seawall. A soft fru fru sound made me realise that the tide was already threading its way back in and I hurried back towards the lonely anchor light.

Just after midnight the voyage to the lighters was completed and in the moonlight they looked frightfully big and menacing. Working down from the north, the first seemed empty, the next nearly full of black material, almost certainly honest Essex mud, and the southernmost looked full of a lighter coloured material with a strange sheen. Nothing would have tempted me to board them in the dark, that would have to wait until daylight, so I anchored 100 yards off to sleep away the rest of the night.

Next morning, a fine sunrise straight out of the sea brightened up the mudflats as I tramped across the mud to the lighters. They were obviously here to stay. Small holes, like eyes, had been cut into the bow and stern buoyancy compartments, making the great black hulls look more like stranded whales. The crane was on a dumb lighter with another alongside it at the northern end of the line. Mud was obviously being brought here to fill the lighters as nothing was being dug locally.

Further inspection southwards showed that they were being filled to the level of the decks with mud. This was covered with polythene sheeting and then the lighter was topped up brimful with shingle. A flimsy sheet of plastic netting completed the job, for a time at least. By high water the waves were lapping the side decks and it was obvious to any seaman that the first easterly blow would lift most of the shingle out of the lighters onto the mud to leeward. All this was clearly an expensive game to play? Who was paying for it?

A wide fringe of salt marsh protects most of the ten miles of coastal seawall between the Crouch and Blackwater from the direct assault by onshore gales, and in places these saltings are over half a mile wide. The tide covers them and reaches the seawall for an hour or two on a few days each fortnight just after a full or new moon. Here alone, the smooth mud and sand runs right up to the foot of the seawall. Along the rest of the coast, the waves will already have been partly tamed by the off-lying banks, which dry at low water.

Only here is there open water all the way through the Wallet Channel between the holidaymaker's beaches of the Tendring Hundred and the long Gunfleet Sand northeast to Denmark. The worst gales come from the northeast. Just here the waves have 300 miles of drift before hurling themselves at the fragile shield of concrete faced cliff that protects the rich marshes of maritime Essex. Thus the protective role of the beached and ballasted lighter is clear, but why the expensive shingle?

In my wandering over the years I had noticed the growing concern of the Royal Society for the Protection of Birds (RSPB) with the dearth of nesting sites for little terns. About a third of the north European population breeds in Great Britain, giving us a population of something over 2,000 pairs each summer. Well over half of them choose the southeast and nest in small colonies on shingle beaches along the shore, the very beaches so popular with the growing and increasingly leisured human population.

This area is very isolated and nests would be safe from people but I am afraid the lighters would need to be at least four feet

higher above chart datum to survive an easterly blow that coincided with a spring tide. This was a good idea but I am afraid it was not going to work.

A second visit early next season was top priority. A good westerly breeze enabled me to make a night passage from the mooring to scrape onto the mud inshore of the lighters just as the tide left. Once again a bright sunrise warmed me as I walked across the mud to see what the winter had done. The plastic nets were in shreds.

Most of the shingle was heaped up against the stranded hulls on the landward side as I had anticipated. Even the polythene sheeting over the mud had in places been lifted. A tramp to the sea wall revealed a sign from the Anglian Water Authority proudly proclaiming its part in the scheme together with the RSPB. As I had guessed, the aim was coastal protection and nesting sites for birds.

Already the tides are redesigning the drainage pattern so that water can come and go through the gaps between the lighters. In places, channels had been scoured away in the mud to reveal a few wartime aerial cannon shell cases along the old target railway line that had long since collapsed into the mud. The level of the mud was certainly building up between the lighters and the shore but the hulls themselves seemed to be taking a real battering. When I visited them in 2002 several had already had the coamings wrenched away.

## A Treasure Trove

The publishers of *In Shoal Waters* also offers several other books on small boat sailing that might grab you if *In Shoal Waters* did so. Herewith a list with a brief synopsis of each:

### *Tripp Under Sail*

Alker Tripp's delightfully written 1920s cruising trilogy, *Shoalwater and Fairway*, *Suffolk Sea-Borders*, *The Solent and the Southern Waters*, in separate, beautifully produced volumes, illustrated with pen drawings and paintings in monochrome.

### *Under the Cabin Lamp*

Completing out Tripp library, his charming collection of short cruising yarns, illustrated in pen with paintings in monochrome.

### *Catalan Castaway*

The full-color story of five years of coastal cruising and beach-camping in a small but beautiful sail and oar boat built of plywood.

### *Sheila in the Wind*

England to New Zealand solo in the 1950s in an Albert Strange yawl, with photos.

### *Racing the Seas*

The remarkable early career at sea, under both steam and sail, and five Atlantic crossings by yacht, of the amazing Estonian Ahto Walter, still just 23 on the book's first publication in 1935, with photos.

### *Sea-Boats, Oars and Sails*

Another volume of advice and opinion born of experience, illustrated with the author's line drawings.

### *Details of Dinghy Building*

A profusely illustrated manual for the professional and amateur boatbuilder using traditional clinker construction.

# Cedar Key Great Again

By Dave Lucas

Photos from the Florida West Coast  
Trailer Sailors and Dave Lucas

Cedar Key turned out to be great again, everyone ran their boats up on the beach so I did also. *Helen Marie* doesn't care about running up on shore as long as there's lots of willing hands to push her off again.

This gathering really is as much fun as I always make it sound. You just show up and do whatever you want to do. The whole damn place is only about a mile wide. Any of these hundreds of guys will drop whatever they're doing to help out or answer questions. The only organization is that which puts on the great meal you can get from the Trailer Sailors on Saturday evening if you can wrestle a ticket away from Ron.

To give you a peek at the scene I'll start off with a few of my photos, then follow up from a little different perspective with some that Lenna took standing on shore shooting through a long lens.

To see all of this (and more) in living color google FL West Coast Trailer Sailors. Don't just look at the boats in the photos, look at the background to see activity of all kinds. Earlier events are also in their gallery.



Our penthouse porch perch.



Lugsail rigged kayak.



Pete Bogaz and daughter sailing in light air aboard their T-Gull Tri.

Panorama of the Island Place at low tide.



Another Rex Payne Melonseed?



Alan Hall's Drascombe Coaster. Oar as rudder? Or is he sculling?



Schooner rigged kayak trimaran.



Mike's Boat by Jim Michalak.



Jay Bliss took ideas from Mini-transat boats and ancient skiffs,





Is that surf along the beach?



On the beach at Atsena Otie.



The fast crowd.



Simon's *Egret* coming toward you!



Matt Layden sailing his original Paradox design!



First sail of the *Black Pearl*.



Meade Gougeon showing off *WoodWind*, his Everglades Challenge canoe.



*Messing About in Boats*, July 2013 – 13



Ron Falkey and *Dalliance*, his self designed and built tri.



This is Robb White's Felucca owned and sailed by his son, Wes White, about 35lbs!

Tosh's SeaPearl making tracks!



Two replicas of the *Yakaboo*, Fritz Fenger's Caribbean Cruising Canoe from almost 100 years ago.



The lovely Elver 20.



Hugh Horton's *Bufflehead*.



Pat Ball's Improved Sport Boat design by Robb White

After the crowd leaves, the *Egret* on the beach.



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# Happening on the Hudson

(Continued)

By Dock Shuter  
dkshuter@earthlink.net

The dredging barge arrived and got into position. For the tug fans, that's the *Mary Alice*. The crane barge is the *Delaware Bay*, which has a tugboat looking superstructure on it. Watch out for that guy driving the ship. It took them awhile to get it together, but supposedly the heavy lifter will be here within a week. Don't know whether they will patch the hole before or after they lift it.

Well the 'ol barge was patched up. Before & after, looks like 2" foam & 1/4" plate steel through bolted plus some kind of goo.

They were running a pump, but then quit. The barge still 1/2 submerged, I suspect more holes underwater or the hopper may be cracked. I overheard on the VHF, when the crane first showed up, that there would be a bigger crane coming.

Well, the patch job was unsuccessful, that's a sharpened I beam. They'll be at it for a couple of days. For the tug fans, that's the *Sarah Ann*, crane barge is the *Newark Bay*, hopper barge is the *Witte*, and the victim is the *Tim*.



"Someday, after mastering the winds, the waves, the tides and gravity, we shall harness for God the energies of love and then, for a second time in the history of the world, man will have discovered fire." (Pierre Teilhard De Chardin, S.J.)

Getting off always takes longer than you plan and, in the fall of 1996, it did. The fueling dock was out of order but we were assured that diesel would be available in two hours. Stuart, manager of Sun Sail, Annapolis, fetched our fuel while we topped off the water and ran through the checklist, safety equipment, towel and sheet supply, cooking utensils, silverware, paper towels, sun block and food.

Four individuals: Captain Clark, a 40-year veteran of the high seas whom we always called (in due reverence and with affection), the Captain; John, a pharmacist; Joe, John's brother, a botanist; and I, a female with some sailing experience, set out to deliver a 40' Beneteau sailing sloop to the island of St Maarten. Sun Sail, the company who owned the *Lodo del Maras*, as she was named, wanted the boat in the islands for their winter sailing school.

The port of departure, Annapolis, loses most of its sailing population in the fall despite its being the nicest, windwise, time of year to sail the Chesapeake Bay.

This new fiberglass 40' yacht has a nice and serviceable design. The cockpit is aft. Below deck she has three staterooms, two aft and one forward, and two heads. The head in the bow has a sizable shower. The main cabin has been configured to accommodate several people at a time with the dining/reading/game/map table extending from midships to the starboard side surrounded by a built in semi circular seat.

The Captain's desk is at the foot of the steps leading up to the cockpit on the starboard side just in front of my berth and stateroom. On the port side of the main cabin is the galley with easy access for everyone to everything as it extends the entire length of the cabin.

After goodbyes were said to loved ones and friends, the diesel fuel was topped off and the water supply was filled in both tanks, we finally set off at 4pm from Annapolis. Our destination, St Maarten, the West Indies, was some 1,200 miles away. Or 1,700 nautical miles according to our projected course. Our chosen route would bring us to and beyond Bermuda, thus enabling us to take advantage of the westerlies to the south of the British island.

On a chart, this approach resembles an arc. A sailing ship making an ocean voyage is not concerned with making the shortest passage between two points, measured in miles. It is the weather, more particularly the wind, which dictates the course. In some cases, pre-existing conditions like the Trade Winds in the West Indies and the movement of the Gulf Stream flowing northwards and then eastwards can be counted on and used in charting the projected trip. The weather is another matter and, as much as we could foresee, was included in our calculations. With all these considerations, our estimated time at sea, beyond sight of land, was 12 days.

The wind was blowing at 15-18 knots so, although we used the engine to leave the fueling dock, in no time we had the sails up and were quietly sailing down the Chesapeake Bay. The water lapped loudly against the sides of the *Lodo del Maras* as we

## A Sailing Trip To St Maarten from Annapolis November 1-13, 1996

By Patricia Daly-Lipe

Literarylady.com

Reprinted from *Messages from Nature*

**(Editor Comments:** This story arrived unsolicited from the author of the book, not as a book review but to share her views as a non-sailor with our readers. I thought it a good read. The book has only one other sailing chapter, the balance is devoted to other topics of nature's wonders. If this is of further interest go to her website listed above).

cruised along at seven or eight knots pushed by a nice nor'easter, just the right wind for going south.

We planned to sail all night and then stop at Cape Charles City. It is the last town on the Eastern Shore at the mouth of the Chesapeake Bay before entering the Atlantic Ocean. I was at the helm since this part of the voyage was quite safe and easy to handle. The sea was calm and the approaching night sky was clear. I was beginning to relish being back at sea. And the lone seaman all the night!

Sails astonished among stars. (Emerson) There is a wonderful feeling when all you can hear is the soft swish of the sea as it is invaded by the bow and the rippled sloshing of the water as it is left behind the stern. I turned on the navigation red and green running lights at the bow and the white light at the tip of the mast. The compass light came on automatically so I slipped the cover over its face to keep from being distracted from the impending darkness and the sea ahead.

The moon hasn't come up yet, the stars are brilliant. Pleiades, the jewel box of the sky, rides on the back of the bull, Taurus, while the mighty Sirius, the brightest star in the night time sky, glistens in the collar of the great dog, Canis Major. In the middle is the belt of the hunter which is always on the celestial equator. This constellation is a sailor's guide. Beautiful cumulus clouds with mare's tails are beginning to detail the night sky, an archetypal day on the Chesapeake Bay. The sun has left us completely now. It has become totally dark.

After the sun and before the moon, the sky is black. I can't even see the sails to check for luffing. The light on the top of the mast has gone off so I can't see the wind indicator either. "Feel the wind on your face," the Captain instructs me. I am having trouble directing the craft. The wind is a bit volatile and weak. Not only the wind but the water presents problems. The tide is flowing against us to its rise at 10:30pm. The warning bell goes off. We are in shallow water. The boat is going nowhere. We flip on the engine and a line from a crab pot shoots out behind the boat. I shut the motor and return to the sails.

All of a sudden there appeared to the port side, silhouetted behind the skyline of the Eastern Shore, a huge bright orange shape. It was eerily reminiscent of something from a Steven Spielberg movie, something totally surrealistic. I couldn't imagine what it might be nor who could have made such a structure.

It was not like anything I had seen before in real life, nothing beyond the science fiction movies or children's fairy tales. Enormous and shiny, it was like a sculpture or some kind of modern art form. I was incredulous. The Captain roared with laughter and called the other crew members up from the cabin below where they were putting their belongings away. "That's the harvest moon!" Sure enough, as it rose up from the horizon and entered the night sky, the circle of light became smaller while losing some of its intense orange brilliance. Eventually the traditional white circle passed overhead.

"The gray mist on the sea's face, the gray dawn breaking..."

The great sea birds (pelicans, terns, herons, seagulls and cormorants) began their morning ritual as dawn approached. Bobbing and diving for fish, they were obviously enjoying a feeding frenzy. With a 25 year record for high temperatures, no rain and plenty of sunshine in Maryland, this was a lovely time to be on the Bay. Normally the nor'easters, which are heavy, cold and brutal, punctuate the Bay this time of year. We are so lucky.

As the morning approached with the reappearance of the sun we acquired a porpoise escort. Actually, he may have been trying to warn us of the rising bay bottom. On a direct heading to Cape Charles City there were shoals everywhere unmarked. Our draft was not that great (10') but we began bumping into something and were forced to turn around.

Before getting totally stuck, we adjusted the sails, captured the wind, heeled to the side changing the center of gravity to remove the keel from the sand bar. Slowly, with sails billowing in the wind, we slid away. Now in order to head north, we had to sail south and around to the port of Cape Charles. Going backward to go forward or forward to go backward is typical of sailing and takes some getting used to, it certainly defies all landlocked logic.

The channel was not well marked so we glided in slowly. We had plenty of time to observe and enjoy a convention of pelicans just a few yards off our starboard bow. The birds were gathered on an old wooden remnant of what looked like a fishing pier about one quarter mile away from the coast. Just behind the pelicans we noticed heavy fingers of dense leaden cirrocumulus clouds building up, indicating foul weather. Cirrocumulus clouds are generally associated with fair weather, but when they thicken and lower, a storm is usually indicated. We needed to stock up quickly and scat to be in front of the impending rough weather.

Cape Charles City used to be a railroad headquarters. Before the Bay Bridge was built, railroad cars were loaded on barges in Norfolk and transported across the Bay to Cape Charles City to be reintroduced to tracks and continue their trip north. The barge ramp is still there but deserted and useless and the former dignity and grandeur of the little city, although it can still be found, appears to be ignored and in need of attention. We pulled alongside the retaining wall and tied up. Cracks and holes corroded the site. Without the train trade, the government ignores the requests of the town and its vocal dock mistress, Mary Crockett, for financial assistance.

The town was just across a parking lot. The boat was safe, it was that kind of place, so we strolled over to the main street. There were few people around but we did find one elderly

man who looked like a resident. We asked where the best source of food in town could be found. He directed us to a restaurant around the corner. He was right, we had a sumptuous and very inexpensive lunch at Rebecca's Restaurant. This would be our last level sit-down meal before heading out to sea. The coleslaw, clam chowder and bread pudding were particularly good home cooking.

Two ladies, Mrs Frances Bender and her friend Bobbie, who were also having lunch, offered to take me to a fish market just outside of town to stock up our rations. It wasn't far and I was happy to be in the company of such friendly women and interested in just what brought the two to this remote part of the world. Both were widows. Their husbands had come here years ago, worked, retired and died. Neither lady had the least idea about leaving the land that had become, over the years, home.

The store was small but definitely not lacking in friendliness. Everyone there knew the ladies and all were delighted to share much enthusiasm for the local produce with me. At their suggestion, I purchased a basket of oysters (\$15), a bag of little neck clams and a large Rockfish, all fresh and local.

"If you would know the age of the earth, look upon the face of the sea in a storm." (Joseph Conrad, *The Mirror of the Sea*)

Rolling seas, small chops, rain, gloom, three hours of continuous rolling offset by jerky movement, and I was the first. Holding back as long as I could, I finally threw away my ladylike demeanor and let go over the side. Immediate relief but short lived. Soon everyone on board was heaving over the side, even (the last one, of course) the Captain. We had set sail as soon as I returned with my purchase of fish. The men already had raised the main and were holding the bow lines waiting for me to jump on board. Now, as we were jerked and tossed by severe seas, all I could think about was how nice it had been to walk on land!

From my sea stained journal:

"Rain, rain, cold and wet, the wind increases now (2pm). We are really being tossed around. Forty miles to the Gulf Stream southwest surge of the waves. 'They're humping up so we must be close to the Gulf Stream,' said the Captain. 'The water will be sea green. The seawater is always warmer than the rain.'

That's our Captain, always the optimist. Had to reef the sails, more sail holds the boat better but can also tear. We are holding a heading of 120° more or less. Rain continues, heavy wind. My face is splashed, first with fresh water from the sky then with salt water from the surf. We have reached the Gulf Stream. The cold wind of the north hits the warm Gulf Stream water which results in turbulence.

"Lightning. The pitching makes it very hard for me to hold the helm. Very scary in the dark. Very cold, wet from pitching surf and rain. My teeth are chattering, nausea comes back. 10' to 12' waves. Everyone is sick. The lovely rockfish which our Captain had prepared with dried tomatoes had to be pitched."

I had a guest yesterday, actually two. The first was a robin redbreast. The winds were still blowing fiercely and must have pushed him off course. He was obviously lost. It was only a second before he left, instinct must have told him to leave. I am afraid he will become a meal for the sea birds. It is too far

from land for the little fellow. The second visitor, a little brown bird, came back several times. At one point, he actually stood next to my feet. We fed him granola and bread crumbs, but like the robin, he is too far from shore (approximately one hundred miles) and will probably not survive the elements.

Migration is not an easy or a pleasant thing for a tiny bird to face. It must turn deliberately from solid land, from food, shelter, a certain measure of security and fly across an ocean unfriendly to its life, destitute of everything it needs. We make much of the heroism and endurance of our airmen and explorers.

"Perhaps one day we will rival the adventurous hope of the willow wren and chiff chaff an ounce and a half of living courage, launching out with amazing confidence of prospect of storms, hardship, exhaustion, perhaps starvation and death ... the tiny bird, before conditions force it, not driven by fear, but ... drawn by hope, commits itself with perfect confidence to that infinite ocean of air, where ... all familiar landmarks will vanish and if its strength fails it must be lost." (Margaret Cropper, *The House of Soul*)

Sunday: "We have headed more south and east entailing a realignment of the sails. With a broad reach, we are making good time, eight or nine knots, but we are all still sick. Dramamine for everyone. It is a long, choppy night but a bit warmer. We watch as the clouds pass and all the stars come out, brilliant and clear. Saw a shooting star, a romantic name for debris from the solar system coming into our atmosphere and burning up."

Monday: "Sun at last! We watched it rise just to port of the mast. Beautiful day at sea. Our tummies are ready for food. To celebrate, our Captain prepared a pork roast with carrots, garlic, dried tomatoes and rice. Later he is seen eating chocolate cheesecake with whipped cream! And only yesterday we were all sick! Had to use the engine to make up for lost time and lack of direction (need to sail south). Our 0600 position was 340°42'N/ 680°47'W. We are 300 miles south and four hundred miles east of Annapolis. The water depth here is 4,822 meters (about three miles)."

The proportions of a sailboat are important. The mast is generally one and a half times the length of the boat, the righting moment determines the size of sail. The keel counterbalances the sail. A 15°-20° angle is usually best. Water is 800 times denser than air so a little bit of keel counter-balances a tall mast with full sail. The boat we are delivering is a Beneteau 40 with a roller reefing Genoa and a roller reefing main sail. The main is definitely too small for any serious racing. The boat is well balanced in heavy sea and inclement weather, but she is slow when the winds and sea are favorable. High speed appears to be eight knots. A spinnaker would have helped us in this voyage.

Sailing at night: Determine your angle from north by the compass then turn out all the lights. Locate a bright star and set (steer) your heading just as you would determine your course on a highway with reference to the center white line. Listen to the sails. This sound tells you the relative angle and the intensity of the wind. Changes in these sounds alert the helmsman/woman so that adjustments can be made to keep the boat on a proper heading. The setting of the sails may need to be adjusted or the heading may need to be changed to remain on the proper course.

At night, your eyes adjust and your hearing is keen. Large ships and freighters

are always lit up and visible from great distances. They also are equipped with radar. As they approach or pass across the bow or stern, their movement and direction can be determined by the lights; green for starboard, red for port, amber for stern with the bow lights higher than stern as seen from the side. Trawlers have lights above the deck indicating their position and their situation (their nets and lines can trail hundreds of feet). Flashing lights indicate direction of a turn or backing down or with five short rapid blasts, danger.

There are several different ways of navigating; one based on the light intensity of the stars; a second, using a sextant and angles between the stars, Venus and Sirius; and a third with a modern GPS.

In order to determine a boat's position at sea, where no terrestrial points of reference exist, the stars become a friend of the sailor. The light intensity of stars and planets is measured by a magnitude scale of -30 to +25. This scale is inverted where our sun is a brightness of -27 and the faintest star that can be seen the most powerful telescope is around +25.

This scale is not linear, it is a mathematical scale based upon logarithms of 10. It has no upper and no lower limits (though the sun, in practice, sets one end). Every five numbers represent a one hundred times increase or decrease in brightness. The sun measures nearly -27, the sunlit moon (the full moon) measures a magnitude of around -12.5. This means that the sun's light energy is not double the intensity of the moon but is one million times as bright as the moon. Venus has a magnitude of -4.4. You cannot see most stars and planets with the naked eye because they are too dim.

The historic method of calculation of a boat's position is to draw a triangle from your position to Venus then to Sirius (part of the constellation Big Dog, always to the southeast of the constellation, Hunter) and back or to imagine a triangle from yourself to Venus, Sirius and back. Using the line from Venus to Sirius, draw a perpendicular line to determine the relationship of the sailboat to the stars.

Where this perpendicular intersects the surface of the earth is the fix. A handheld instrument called a sextant is used to measure the angle between this fixed line and the horizontal. By using this sextant angle and an accurate timepiece/clock/chronometer, the sailor, after consulting appropriate tables and making extensive calculations, provided every step is done correctly, will be able to determine his position on the surface of the earth. This process is described by David Hays in *My Old Man and the Sea*:

"Imagine the sun (moon, star) circling around the earth. Forgive me Copernicus, that's the way we do it. The sun is a round grape, the earth is an orange. Connect the center of the grape and the center of the orange with a taut line. The point where this line, the thread, pierces the surface of the orange is called the GP, or geographical position. This GP moves constantly as the sun or other body goes around the earth. There is only one GP at any second, and this exact point, for every second of every day, is found from tables in an almanac you buy for each year."

On our boat it is the Captain who makes all the positioning calculations. The Captain uses a modern radio type instrument called GPS (Global Positioning System). It establishes our exact position reinforcing his sex-

tant calculations using earth satellites instead of stars. It can also be relied upon when a stellar fix can not be established. The Magellan, a trade name for our GPS, uses the signals from four satellites to electronically calculate a position. We are now 330°13' north of the equator and 670°2' west of Greenwich, England (which is 0° longitude).

Continuing in the journal: "Election Day: I was woken up with the noise of the engine being started and the throttle being pushed way up. Water splashed through the hatch, the boat heeled to its side. The crew on watch has apparently lost control of their direction/heading and, with a strong wind, the boat is sailing full speed ahead but now under power. Very unpleasant! "We have drifted too far south and west. Must now sail close hauled with the engine."

Rolling out of my cot in the aft state room and fumbling in the dark, I made my way into the main cabin. Contrary to the way the Captain sailed, these two men opted to turn on the compass light so that, looking up the steps from the cabin below to the cockpit above, I could see the faces of Joe and his brother illuminated. Their rain hoods had little or no effect on the water slapping at them from the stern and sides as the boat yawed in the throws of an angry sea.

From above the heavens were not kind, dumping a rushing torrent of rain and sleet on their faces. Shivering in their wet gear, they sat like gristly old men behind the big wheel, both using all their strength to hold the boat on course. It was a pathetic sight and it was a frightening sight. They were not smiling, instead it was misery and despair that marked their expressions. This was not fun. To think we had all volunteered for this job!

In the dark of the cabin I fumbled around trying to locate my foul weather gear. The boat was rocking and rolling in the heavy surf to the point that the only way to negotiate getting dressed was to hold on to the ceiling hand rail with one hand while somehow getting the pants on my legs and the jacket over my head. Then I had to find the safety harness. It could take up to 20 minutes to figure out all the straps and get them organized to go over the head, around the shoulders, crisscrossed around the waist and between the legs. The lifeline attaches to this harness.

With lifeline in hand, I carefully negotiated the slippery steps to the deck above. This is a tricky maneuver in this kind of weather. We had all fallen at one time or another and I already had the bruises to prove it. There is no rhythm to this kind of rocking and rolling. With the rest of the crew, I attached my safety line to the stanchion and hung on for dear life until dawn when the weather changed. Incredibly, the Captain slept through it all!

Morning: "The weather is lovely, the sun is shining. I can't believe last night's frightful situation ever happened but the scene still plays havoc in the "palpitating vacuum of my memory" (George Millar's description of his perilous adventure in *A White Boat from England*). But that is the way of the sea! Three little porpoises are playing off our bow. They are exactly in sync with the pitch of the boat as they dive right in front and don't get hit. It is obviously a game for them. We watch them play for at least a half an hour."

Joe, who was manning the helm again after a brief sleep, told me more about the Magellan GPS. It is a great little instrument which was first used by the United States government to protect the nation should an

attack eliminate radar, etc. It is now in abundant circulation. There was a scare last year that the government would degrade the accuracy of the satellites' signals. They felt, however, that it was not necessary because the United States was not at war.

There are at least 13 satellites circling the globe but, in order to achieve an accurate fix, direct contact with four is needed. GPS units, like our Magellan, can be used for hiking or visiting a foreign city as it always knows where you are and tracks the trail or route you take. The GPS unit we have on board is a Meridian XL Magellan GPS Satellite Navigator. The brochure states: "The Global Positioning System (GPS) is operated by the US Government, which is solely responsible for the accuracy and maintenance of GPS."

Further: "The accuracy of position fixes can be affected by the periodic adjustments to GPS satellites made by the US Government and is subject to change in accordance with the Department of Defense civil GPS user policy and Radio Navigational Plan."

Election Night: "Clinton won! We are 30 miles west of Bermuda. By 6am we are circling the island. Since we arrived at the southern tip, we requested assistance in entering the harbor at Hamilton. The harbor-master would not allow us to enter from the south; rather, he required that we sail up the east side of the island, over the north end and down the shipping lanes to the Great Sound entrance in the south on the west side. A whole day lost!"

I took the helm at the north end of Bermuda, found the narrows (indicated on the chart), an ocean lane marked with buoys, took the boat far west of the island to avoid reefs and headed south with a compass reading of 130°. A quarter of the way down a rescue boat pulled up alongside. We were, the man said, precariously close to the coral reefs and, to make matters worse, it was close to low tide. They had tried to reach us by VHF radio but we had all been on deck and hadn't heard.

Furthermore, we were ordered back to customs in St George despite the fact that we had registered with the dock master via VHF in Hamilton at 3am. New man, new rules. With heavy heart we turned the boat around again and retraced our steps to the north, renewed our acquaintance with the narrows, and entered the channel to St George. After six days at sea, we were so anxious to step on terra firma."

St George proved to be delightful and we thoroughly enjoyed our brief stay (3pm Wednesday to 10am Thursday). Geographically, Bermuda is part of the volcanic structures that have risen from the mid Atlantic rift (the spreading line that separates the continents). The outer perimeter of the Bermuda volcano is the coral reef area. The inside of the crater or craters is filled with volcanic dust, limestone and dirt from Africa.

The sun was shining so we followed a path over the top and down the west side of the island for a swim in a protected pond of ocean water shielded from the sea by monoliths of volcanic rocks. The water was 70 degrees. Bermudians don't swim this time of year; in fact, their season is quite short. On the climb back up the hill after our swim, we noted the lush vegetation.

A banana tree growing alongside a picturesque pastel house reminded me of southern California (where I grew up). The banana "was probably introduced about 1616, the

first bunch of bananas displayed for sale in London, England, came from Bermuda!" The book put out by the Bermuda Department of Tourism further states that "Banana leaves were once used to stuff mattresses."

Another fruit growing in Bermuda is the Paw Paw (*Carica papaya*): "in old Bermuda, the juice of the green fruit was used for ring worm and warts, now it is cooked as a vegetable. When ripe, the fruit is yellow orange." Papaya juice contains a photolytic enzyme, Papain, which digests the ringworm fungus. The only endemic palm is the Bermuda Palmetto (*Sabal bermudiana*). Its leaves were used by the early settlers to thatch their roofs. They also made Bibby, "a very intoxicating drink," from the sap. "In the 1700s, ladies' hats of Palmetto leaves were the height of fashion in London."

Another native tree is the Olivewood Bark (*Assine laneana*), an evergreen with leathery, dark green leaves, yellowish white flowers (from late winter to early spring). It grows slowly but lives to a great old age. We saw it growing on the rocky hillsides.

A species of Juniper, the Bermuda Cedar (*Juniperus bermudiana*) is another endemic tree. Its leaves are scale like, overlapping one another with dark purple berries. "The timber has been used for ship building, houses, furniture and fuel. In the 1940s scale insects attacked these trees. By 1951, about 85% were dead, many more were left in very poor state. Happily, a reforestation programme has proved very successful."

From Madagascar comes the tall (up to 40') Royal Poinciana (*Delonix regia*) with its lovely regal red flowers (late May to late September). The unofficial national flower, however, is from the bermudiana (*Sisyrinchium bermudiana*). It is a "small herbaceous plant with leaves 5" to 8" long when fully grown. Narrow and knife shaped flowers have six purple petals that are yellow at the base..." It only flowers mid April to May."

As we strolled down the path toward the little town of St George, we saw oleander hedges with their pink flowers and hibiscus with red flowers and bougainvillea growing over limestone walls and up the sides of dead trees with its glorious purple flowers. The bougainvillea is a native of Brazil. The oleander and hibiscus come from the tropical Pacific. They all thrive in this climate in the middle of the Atlantic Ocean.

Couldn't resist. We had to look for the famous Bermuda Onion. We found none. Apparently the export trade ended in the 1930s because of import duty, competition from the United States and decreasing available land. The seed had been originally sent to Bermuda from England in 1616.

In the evening, we were enchanted with the musical chorus of the tree frogs (*Eleutherodactylus johnsonei* and *Eleutherodactylus gossei*). The small frog, *Eleutherodactylus johnsonei*, is only about 1" long and is more common. Both are brownish, nocturnal and live in trees near the ground. They are very hard to spot. In the daytime, they hide under stones and leaf litter.

Bermuda is home to the Giant Toad (*Bufo marinus*) as well. He is also called the road toad because so many are killed on the road. These toads were brought over from Guyana in 1875 to control cockroaches and are now found in Hawaii and other Pacific Rim islands.

To control the lizard population, the Kiskadee (*Pitangus sulphuratus*) was imported

from Trinidad in 1957. It is "a large, flamboyant, yellow and brown typical fly-catcher..." However, instead of catching lizards, it preferred to fish on ponds and "catch insects in the air and eat berries, fruit, mice, and young birds, to the delight of our lizards!" (Bermuda Dept of Tourism)

The perky little songbird we heard in the trees was the White Eyed Vireo (Chick of the Village) or Vireo guseus. It sings year round and is a native of the island. Another native is the Bermuda Petrel or Cahow (Procellaria cahow). This is a "famous endemic Bermuda seabird, believed extinct for nearly 300 years until its rediscovery in 1951. It is one of the rarest birds in the world, under strict surveillance and protection of the Government.

The Cahow lays a single egg each year and feeds at sea in the Gulf Stream." The Gulf Stream is 400 miles west of Bermuda! The parents stay together to care for the one baby. If one parent dies, the other parent and the baby bird will die also because no food will be provided.

History abounds in Bermuda. Everyone seems to know some and embellish the rest. The Bermudians have triumphed financially from every major battle fought including battles between the British and the Americans. It even served as the port of origin for the blockade runners (Confederate Naval forces). Pirates pillaged and plundered with permission from His or Her Majesty as long as the victims were not British ships. They were called "privateers." The loot was stored in Hamilton, the end of the island we never saw.

Meanwhile, St George wanted to establish itself as a city. To accomplish this status, a cathedral was begun but its construction came to a halt when another cathedral was quickly built in Hamilton. Nevertheless, St Georgians are proud and supported the seat of power. The town hall, customs, cruise ship depot, shops galore, a golf club, excavations, a fortress and beaches are all found at this end of the island.

There are 127 churches on the island supporting every religion that comes to its shores. School children wear uniforms and greet us with a very polite "good afternoon" as we walk the narrow streets. Above the pool where we swam earlier were the remains of a freshwater gathering station. Fresh water is a valuable commodity for sailors at sea. In our own case, after six days on the ocean, we needed 90 Imperial Gallons to re top our water tanks.

We ended the evening with a gourmet dinner at The Carriage House, a treat from our crew. The restaurant also houses a museum.

Thursday, 10am: "I'm at the helm. We're leaving the port of St George, passing the lovely old and new sailing vessels we had come to know with their tales of recent near disasters at sea. We remember the men from Nova Scotia who passed the Berry Islands in a gale reaching Bermuda too rapidly at the expense of their craft, a wooden 34' sloop. They lost their dinghy, hatches, windows and almost lost their helmsman when a huge wave came up from behind and swept him overboard. His lifeline held, he went under the stern and came up when the craft righted herself.

The man, in his 50s, did not look terribly fit anyway, a bit paunchy. The sea is a great force to be reckoned with, there is no compromising with her. I write this as we are again beyond the confines of St George,

beyond sight of the island and again 10' to 15' waves are pounding at our port bow periodically drenching us in the cockpit. But the sun is out and the water is warm. Air temperature is 75°. "Night falls. No moon, we have to sail by ear and use the flashlight from time to time to check the compass. We must avoid the big punch from the high up north. We need to get east fast. We also want to be east of the southerlies which push west."

When you are on a train and uncomfortable as it sways back and forth on the track with a jerk here and there, you just sit back and resign yourself to the few hours of discomfort. On an airplane, when the turbulence necessitates fastening your seat belt and white knuckling for a few minutes, you know it will pass shortly. But when you are out at sea, the discomfort can last for days (as in days and nights nonstop).

Inside, the cabin creaks, the dishes fall out as the cupboard door pops open, the coffee pot slips on the stove even though it is gimbaled and leaves

coffee grinds all over the floor, hot bubbly water flows across the counter and down to join the grinds on the floor, hatches leak when the waves come crashing down, damp clothes hang everywhere in a futile attempt to dry them out, dishes and pots clang for attention in the sink, your feet slide and you are bumped and bruised, your body angle is 30 degrees or 130 degrees ... all this is the joy of sailing in unrelenting high seas.

The head (bathroom) is particularly challenging as your body is hurled forward at the door and lunged back to the sink. Outside, the helmsman develops biceps within hours and is lucky not to develop pneumonia as well. Actually, despite the cold and damp none of us has even a runny nose. Perhaps we have too much to do already just maintaining our balance. The Captain tells me we are in fresh, albeit damp, ocean air and bacteria and viruses can't find their way to us.

Last night a squall was spotted off to the north (a 5" width to the eye). Time enough to recognize the need to reef the jib and main and to secure your lifeline close to where you will be needed the most. The most important detail is to predetermine the path you will take when the weather hits. We adjusted the sails to a broad reach and in anticipation of the storms up north we headed well to the east.

"Things to see at night: Just after the sun drops into the horizon in the west, if you look east, you will see a gray crescent rising above that horizon. This gray crescent represents the curvature of the earth. It is actually the shadow cast by the planet herself.

"Back down in the water that surrounds us, bioluminescence streaks out from the sides and the stern of the boat and over the tops of tufted waves. One minuscule agitated organism landed on my pant leg and settled there for a second or two, he seemed almost friendly until he turned his light out. In the glow of the surf we saw what Joe described as "round blobs of bioluminescent goo the size of a softball." These Moon Nettles are a type of jellyfish but they don't have stingers. They are amaphrodites and probably represent an early form of life.

They have exoskeletons; that is, the outer membrane holds the organism together. In the Chesapeake Bay, nettles were seen 40 years ago that were 15' long and red ("blood-suckers"). Last month John, our other crew member, saw 7' sea nettles at Solomon's

Island. These organisms are part of nature's purification system, he tells me. They eat plankton. (John is a pharmacist). These Moon Nettles are part of this system as well. For supper, our Captain grilled mussels I had purchased in Cape Charles City. The barbecue is attached to the aft starboard rail. What a new and delectable taste!"

To measure the wind factor, we use the Beaufort Wind Scale. Admiral Francis Beaufort devised this scale in the 19th century. According to William Crawford, author of *Mariner's Weather*, those were the days of "wooden ships and iron men." It is a visual as opposed to digital measurement of wind speed and ranges from 0 to 17. A calm, smooth, mirror like sea is, of course, 0, smoke (the old fuel source being coal) rises vertically. The 17 conditions are called "forces." Force 12 is a hurricane.

Air fills with foam, the sea is completely white with driving spray, visibility greatly reduced. This condition is very rarely experienced on land, it is usually accompanied by widespread damage. I have never seen any higher than Force 12 listed. Force 4 is described as "moderate breeze, small waves, becoming longer, fairly frequent white horses." With Force 8, "foam is blown in well defined streaks in the wind." Anxiety begins here. We have been sailing almost consistently in Force 7 to 8 on this trip but the final thrust has yet to hit us.

Generally speaking, most of the continental United States lies in a zone which has been called the prevailing westerly wind belt. Notice the word, "prevailing." It does not mean consistent but prevailing does indicate the most frequent pattern of wind. In what are called the Horse Latitudes, the prevailing winds are the northeast trades with a downward sweep to the east.

This happens from approximately 300°N latitude down to the equator. The weather in the Horse latitudes is generally good although low clouds are common. The air that was heated in the tropics is usually cooled at higher altitudes and becomes less humid as it descends to the lower altitudes. Crossing this area in a sailboat can be difficult. Often days of stagnant air are followed by days of frenzied air activity and often can come unexpectedly.

In the old days of sailing vessels carrying cargo to the New World, the cargo was often horses. With limited supplies of potable water available, it was a question of man or beast. As a result, many horses were thrown overboard, hence the name for this wind belt. The so called doldrums separate the northeast trades from the southeast trades that have an upward sweep to the east. We have attempted to take advantage of all these factors in charting this course to St Maarten.

Saturday: "A quiet, slight breeze permits repair work to be done. The jib was torn at the foot during the tempestuous first days. We had rolled her back into the furling as far as the rip which naturally diminished our sail surface (and, therefore, speed). Now was a good time to do some makeshift repair. In this light wind, we need as much sail surface as possible.

Our Captain poked holes and wove a line through the sail, it is too heavy to sew. He then seized it in place. The main has seen her trials, too. She has a tear mid sail near the spreader. The Captain will tape this area. Joe brought up his fishing rod with a big spinner and lure. The line is now bobbing astern.

We just found out that the Magellan GPS was still set on East Coast time. For several days we have been sailing in an easterly direction and have entered a new time zone. We assumed that the time change would automatically kick in. The sextant indicates that we are 15 miles east of where the GPS put us.

It is amazing what meals you can come up with using leftovers. Today's success, beaten eggs on turkey, carrots, onions, oil and rice cooked in a closed pot and topped with cheese. Three hours later dessert was served, cooked fresh pears with yogurt.

Later this year, our Captain will be sailing around Cape Horn from the Pacific to the Atlantic. He may be there on December 21. On that day the sun will not set at Cape Horn. Here we already observe the declination of the sun as 16.5°S. The sun's declination only goes 23.8°S from the equator which is located along the Amazon. By the time we reach our destination, St Maarten, it will be 18°.

Ptolemy was the first astronomer to measure the circumference of the earth. By knowing the circumference, the relative distance to the sun can be used in conjunction to compute location. Ptolemy took the measurement in the simplest fashion. He dug a well in the desert. Then he measured the sun's shadow crossing over the well. That made a triangle. In ten months this registered the movement of the sun in relation to the earth and thereby he was able to compute the exact size of the earth. It was too easy for most to believe.

In the 14th century Copernicus was imprisoned for his accurate measurements of the globe. Every student of Euclidean geometry is acquainted with his theorems. In the 15th century Galileo was incarcerated by the Holy Roman Church in order to squelch his findings, namely that the earth rotates around the sun instead of the other way around. Although the prison cell was nice, he was impeded from validating his findings.

When the sun rises and sets, there is directly opposite (west or east) equally beautiful color. At sunrise and sunset, the sun's light travels tangentially to the earth's surface where you are. Because of the low level of the sun, its rays travel long distances through the lower and most dirty layers of our atmosphere.

In so doing, the dust particles filter out much of the blue light and we see the remaining reddish colors from the color spectrum. When some clouds are present, the reddish glow is enhanced. On the boat with no interference from land masses, it appears as if we are in the middle of this spectacle of light. It is because of this tangential factor that the light and colors appear on the opposite horizon. "And the dawn comes up like thunder." (Kipling)

Saturday-Sunday night: "A long, breezeless night necessitated using the engine again. Time to identify the stars. Our four hour night watch began at 8pm. After a four hour rest, it will resume at 4am, my favorite watch since we are privy to the spectacular show of the morning sun."

To the port side (east) we look for Pleiades (the jewel box) with all its beautiful colors (greens, mauve, purples and red) to rise above the horizon, then little dog (Canis Minor) with Procyon, the big star, the navigable star.

Procyon, which means "before the dog" because it rises before Sirius, the Dog Star, is the fifth nearest of the stars visible to the naked eye. By the time the belt of Orion

reaches 0200 (30° above the horizon), we can see the red light of the star Betelgeuse (originates from Arabic and means "armpit of the giant" according to Dennis L. Mammana, resident astronomer at the Reuben H. Fleet Space Theater in San Diego).

Marking Orion's eastern shoulder, its angular width appears greater than the width of Mars. With a magnitude of +0.5, it is bright enough for its red color to be apparent to the naked eye. Hanging down from the belt of Orion is the sword of Orion. The middle "star" is not really a star. It is the Great Orion Nebula (M42), a quadruple star system in a cluster inside of which new stars and planetary systems are being born. It is nine billion miles (1,500 light years) away.

The hunter Orion's left knee is marked by one of the brightest stars in the sky, Rigel. Later in the evening sky the mighty Sirius, the Dog Star, rises up. Between Sirius and Canis Minor we can see the Milky Way. Originally the name Canis Major referred only to Sirius. Sirius is 25 times brighter than our sun but because of its distance, its magnitude is only -1.46; it is, nevertheless, the brightest star in the sky.

Sirius appears to us as southeast of Orion. By 4am I observe Venus making her debut. She has an incredible magnitude of -4.4, the brightest object out there except for the sun and the sunlit moon. In the early morning I use Venus to guide the boat.

With no wind, we took a break, turned into the source of the tiny breeze we had, pulled the jib over the bow, returned to a heading of 190° or so and were at a halt. The water was most refreshing as we swam around, dove under to inspect the hull, and had some real cardiovascular activity.

Last night, unbeknownst to me, we passed through the Sargasso Sea. The Sargasso Sea is located between the West Indies and the Azores from about latitude 200°N to latitude 350°N. This is the area in the Atlantic Ocean where the currents swirl in a circle. This movement is the result of the prevailing surface currents around it, primarily the Gulf Stream.

It is here in the Sargasso Sea that all the debris collects. The Sargasso is the center of the circle of movement. The debris comes from all over the Atlantic Ocean. At this time of year, the current movement, though always clockwise, is more and more westerly as we proceed south. We had been warned in Bermuda to be careful of ship wreckage in this area from the recent hurricanes. Luckily we ran into nothing.

4am watch: "The dawn breaks slowly. The bright constellations grow dim. I'm steering by the bright light of Venus two points ahead of the beam on the port (east) side. We are not sailing. The sails flap, the engine throbs softly.

I look west, no more stars. Light has pervaded the vista of the universe. The light began as a pale blue and yellow strip on the western horizon but as I turn now, the horizon has become a spectacle; orange, bright, bright orange lashes out violently, clawing with its long, skinny, gnarled fingers any clouds that might have been lazily dancing by.

As I stare in wonder, a tiny sparkle like a fourth of July sparkler comes up, ever so small, peeping over the horizon, waiting for just the right moment. And when that moment comes, at the zenith of brilliant orange, out pops the sun, whole, yellow and bright. The orange disappears and suddenly it is daytime,

more or less 6am as we creatures here below call it."

Sunday noon: "We are at latitude 250°50'N and east of St Maarten."

Monday morning: "Light diaphanous and pearly fine with hairs and roots in the jet stream of the upper atmosphere, the upper cirrus streak like gauze while wisps of smoky gray dark brooding cumulus are lurking on the horizon looking for a chance to combine, each loaded with humidity.

The altocumulus looms to the west with its pearly tops puffing out from a pink background above, grey blue to the horizon below. The water has a pink glow to the west, to the east it is a cerulean blue punctuated by short crests of Prussian blue. Foam gathers behind the boat as we move along at six or seven knots, still under power but with the assist of a little bit of wind.

The clouds are important and should be included as weather instruments on any boat. For example, the cumulus which we are looking at now needs vertical development above 10,000' before a thunderstorm or squall can develop. We'll watch it closely."

In 1803, a gentleman named Mr Luke Howard identified three basic cloud forms; cirrus, fiber-like strands extending in any direction; cumulus, flat based heaps extending upward; and stratus, horizontal sheets widely spread out. But cloud nomenclature goes a step further. The aspect of altitude is considered and thus the names combine or are augmented with prefixes for clarity.

"Alto" really means high but as a prefix indicates a cloud formation in the middle altitude, 6,500' to 20,000'. "Cirro" means curl but when used as a prefix means the cloud is located in the high altitude zone, over 20,000'. "Cirrus" is a complete name referring to a high cloud composed of ice crystals with a delicate, feathery appearance.

"Cumulo" or "cumulus" come from the Latin meaning "heap" and suggests a vertically developed pile. By itself, "cumulus" represents a cloud structure, a dome rising from a flat base. "Nimbo" or "nimbus" refers to a cloud that is or will soon be raining. "Strato" means spread out but as a prefix refers to a cloud in the low part of the sky. "Stratus" is a complete name that means a low level spread of cloud which covers a large part of the sky.

So there are two patterns, one that describes the appearance of the cloud and one that describes the altitude. The important thing for the sailor is to recognize the structures and to be able to anticipate what weather conditions might soon be keeping them company.

We are about 375 miles from St Maarten and 600 miles from Bermuda, almost 1,500 miles from Annapolis. We are now crossing the most probable passage of Christopher Columbus. It is disputed where he actually made landfall first but it probably was Samana Cay, latitude 230°N. On this latitude we have seen two ships so far (we hadn't seen any other signs of civilization since we left Bermuda). One ship was a freighter probably headed for Africa/Gibraltar. The other was a cruise liner heading in the direction of Florida.

Getting back to Columbus, after his third trip to the New World, he was sent back in disgrace, chained and incarcerated for his decimation of the native population. He had initially encountered 250,000 or more people but, at the end of ten years, that population had been completely wiped out. Labor,

mines, slaughter. Columbus was, in essence, Chief of State as well as Admiral of the Seas and as such had despotic control.

What an awful blot on an ingenious sailor's character. He certainly knew his latitude, his prevailing winds, some days he was able to sail over 180 miles. As the Captain says, "Columbus knew how to come off the wind." However, his flagship *Santa Maria* was wrecked off the coast of what is now called Haiti and lost.

Who would separate waves from sea and say, "These are waves but this is the sea." Yet thoughts of waves forget thoughts of sea.

Thoughts separate wholeness into parts and then forget wholeness. Waves and sea separate only in thoughts that have separated one thing from another and then have forgotten the separating.

To return to the Tao, remember thoughtless wholeness. (Ray Grigg, *The Tao of Sailing*)

The sky, the clouds, the surf, the sails, the invisible wind, the creatures of the sea, birds and us ... we are all connected. Never have I felt so much a part of and yet so humbled by nature as I do sitting by the wheel at night, alone with the stars and the sea, listening, listening...

Monday: "The winds picked up around noon (remember the clouds?) and the ocean is rolling in undulating craters, waves at odds crashing into each other, foam tossed into the air and our small craft traveling along sans motor at 6.5 plus knots. Finally!"

Monday pm: "Blue sky, scattered clouds, warm temperature and the ocean/sun/wind all to ourselves and lovely. Lunch consisted of everything we had little of and needed to finish; pine nuts, peanuts, onion, turkey, sweet peppers, hot peppers, bell peppers, parsley, carrots, all served over brown rice. Fruit cake and pound cake with butterscotch sauce followed topped off with almond flavored herb tea. It is amazing what you can eat when you're out at sea! Still haven't caught a fish, the line is out and the barbecue is ready."

Monday night: "Twenty-five knot wind (Beaufort Scale, Force 5) pulling west. The sky is hazy blocking the stars. It is a torn and ragged sea, lumpy. At the helm, I am surrounded with sound. The sea lapping or growling, the breeze passing through the shrouds with a chiming musical ring, a fog horn like sound emanating from the Bimini frame, the shrill but soft wail of the EPIRB (electronic transponder indicating radio beacon).

It is selective listening because the water which gurgles and the great sucking sound, the bobbling and whooshes are a comfort to a sailor's ears as he or she concentrates on the flow behind the boat. The intensity varies from Valkurian to romantic, a veritable orchestra, a symphony of sound.

Then there are the not so sonorous sounds: the creaking and groaning of the bulkheads which must have come loose from the hull, the sound of the big three-bladed propeller hitting a high pitch as the boat accelerates off a wave. 'A parasitic drag posed by this encumbrance (the propeller) is a derisive to the sailing characteristic and abilities of this boat!' lamented the Captain.

That and eight tons all up and a short rig and a roller reefing mainsail slowing us down. Very frustrating. "We're seeing lots of flying fish. Some land on deck and if they are not found right away, die there. Their little bodies are about 6" long with black and white striped wings about 4" long. The total wing-

span is about 9", enough to keep them airborne for flights sometimes up to 300'.

We have to sail east of Anguilla Island and approach St Maarten from the south. We should be there by dawn. We are now sailing over what is called the Puerto Rico Trench, over 8,000 meters deep (about five miles). It is the deepest part of the Atlantic Ocean.

"The sea below melds into the sky above. The sky above melds into the sea below. Only by remembered differences are sea and sky separate. In the full middle, in both remembered sea and sky, is the sailboat, together with those together, united with those in union. In the water of sea and the air of sky is the earth of ship and the fire of sailor, all together in a special togetherness." (Tao)

St Maarten: 1,200 miles south of Annapolis. We are almost there. But first we are raised out of our lethargy by one final burst of energy. It is our last challenge. Strong, gusty winds seemed to be coming from all directions at once. Similar to a squall, with gale force wind, it lasts but a few minutes. The Captain is called up for the emergency. The boat has jibed and the helmsman is terrified.

The mainsail is let out by undoing the traveler (the British call this the 'horse') and letting it slide out to beam reach and both sails are reefed. We jibe back into place, it is rough. The waves are in a frenzy. The wind is gyrating. Although I have attached my life line, I am still deathly afraid of being thrown or knocked overboard. The Captain, on the contrary, calmly makes the proper adjustments, puts the helmsman back on duty and goes to bed! "No problem," he says.

The next day he tells me about the *Pride of Baltimore*. It was a similar situation that sank the original *Pride of Baltimore*, a proud and noble tall ship, taking the life of one captain and two crew members. It happened just off the coast of Puerto Rico. The Captain called it a microburst. In this part of the world, microbursts and the horizontal winds they produce are common.

Microbursts can be truly overpowering. It was just such a phenomenon which, in 1992, forced a jumbo jet into the ground just short of the Dallas airport runway. All passengers and crew were killed. Microbursts cannot be predicted nor can they be avoided even with today's technology.

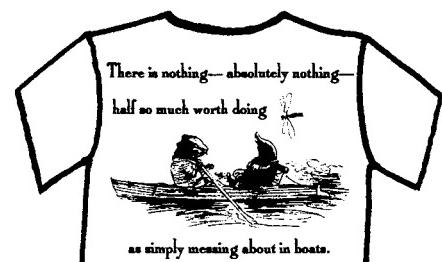
We arrive at dawn. The big cruise liners lie just outside the port waiting for the "proper time" to come in. Must please the customers after all! Meanwhile we sail right up to the dock, throw the lines, tie up and take our first tentative steps on terra firma. Five days later, I could still feel the swells rocking me.



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Preface to Chronicle #6: I wrote Chronicles #1 through #5 rather quickly, last winter. Had a lot to say, I guess, and had thought that those five would get me through to the beginning of the boating season, which I anticipated would produce more timely yarns to tell, and give you all some relief from the reminiscences and nostalgia of the first batch of Chronicles.

Alas, spring has kind of erupted and caught us all unawares, here on the French Shore. Spring is not always a reliable season in southwest Nova Scotia. Many years, the transition from winter to summer is a desultory few weeks of bad sledding before the black flies arrive.

And there was that year I put more firewood through the stove in May and June than I had burnt in March and April. It was as if the blocks of wood had arms and legs and were simply climbing up and out the chimney. That was a cruel ‘spring.’

What I remember, from my youth in New Hampshire as a real spring, that lovely transition from cold, to cool, to warm; the paced arrival of the spring birds, the gradual transition from winter clothing to all-season, to shorts and T-shirts, is a bit of a rare thing here on St. Mary’s Bay. Soggy weeks of almost-winter suddenly lurch into warm summer days, and the seasonal changes, that seem as if they should take weeks, often happen in four or five days.

However, this year, May 8<sup>th</sup> as I write this, it already looks and feels like a real spring on the French Shore. The black flies are out in the woods, though not biting yet. The guy who mows our lawn has already been here...even before the guy who’s bringing next winter’s firewood. That’s a first.

It has still happened somewhat quickly, but we’ve been spared that long, drawn out not-exactly-winter but definitely-not-spring that I’ve come to expect after 35 years in Nova Scotia. And, it’s come early in the bargain. I should be cheering madly about this, except that it’s kind of thrown everything off-schedule.

So, the “Converting the Canoe to a Rowing Boat” project, and the intended companion Chronicle, is now in abeyance, as it’s already time to start getting the C&L sailboat ready for a new season. I’ll get back to that canoe project, as I really miss the sound of oars making that soothing, mesmerizing, ker-clonk, ker-clonk as they work between a couple of thole pins. I am noodling on a scheme for making that happen in my venerable Great Canadian canoe.

I was intending to get something into the last issue of *Messing About*, maybe something about signing up, for the first time, with the Meteghan Marina Association. I have done that, but they haven’t had the annual meeting yet, or organized the work party to put in the marina floats, and I’d have wanted to include some observations about that.

As well, because of the sudden arrival of spring-like fine weather, it has gotten busy at work too. I work for a building supplies retailer, and we’re suddenly up to our eyeballs in shed and garage estimates, window estimates, deck estimates, etc...

I actually had worked up something I thought was suitable for the May issue, only to discover that I had missed the submission deadline. Damn and blast! My original goal was to have a Chronicle in all, or most, issues of *Messing About*. When I expressed my frustration at missing a deadline, the Editor told

## St. Mary’s Bay Chronicles No. 6 “La brume, la brume. La maudit brume!”

Ernie Cassidy, New Edinburg, Nova Scotia  
Kudos or brickbats may be sent to:  
upcloseconcerts@eastlink.ca

me to relax and just submit them as and when the spirit moved. My hope was, and remains, that the new boating season will provide plenty of fodder, and move the spirit a lot, but it is a bit of a relief to let go of that slightly fanatical intention to produce one per issue.

So, all that said, we press on with the Chronicle No. 6. There is another indication of an early and, perhaps, ‘real’ spring here on the French Shore: fog out on the Bay. Fog. Is there a word mariners, from time immemorial, have hated more? Is there anything that has claimed the lives of more mariners and their ships than fog? There are well over a hundred documented wrecks off the shores of Nova Scotia, and that’s not counting the ones at Sable Island, and I’ll bet you that 8 out of 10 of them are due to mariners coming to grief in the fog. If you’re still wondering, the title of this Chronicle is an old lament of the local fishermen. It translates as: “The fog, the fog. The goddamned fog.”

These days, what with radar, GPS, and all like that, fog is less of a vexation to professional mariners...at least until the electronics suddenly go blank, which they will do, it often seems, at the worst possible time. Sadly, for many of the young fishermen in this area, reliance on radar and GPS has pretty much ruined the dead reckoning skills that their fathers, grandfathers, and more ancient progenitors relied on to bring them home safely in the inevitable spring and early-summer fog that plagues much of the North Atlantic coast.

St. Mary’s Bay gets its share of fog. Driving to work this morning, and coming home this afternoon, I couldn’t see Digby Neck, which defines the western side of St. Mary’s Bay. The bay is only five miles across at its greatest width and barely two where we live in New Edinburg, but it might as well have been five hundred since I couldn’t see the other shore.

That got me to thinking, yet again, about the coming boating season. Not being a professional mariner, and not having radar or GPS on a 16’ daysailer, there are going to be days when I will have to cope with fog. This is a bit less daunting, in a boat that will sail in waist-deep water, than it would be in a fin-keeler drawing 15’. The *Ellie-Zander* (named after the grandchildren) has no electronic navigational devices, but it does have a mechanical depth sounder, which some people think of as a centerboard. And, of course, if I get caught in the fog, one way to keep from banging into things, or drifting off to Ireland on the ebbing tide, is to drop the hook and stop where I am until the visibility improves enough to let me verify that I am where I think I am. That’s why there will always be two anchors on board the C&L; a lightweight ‘lunch-hook’ and a more serious plough anchor, fit to keep a Novi lobster boat stationary in anything less than a mild gale.

The worst thing about fog, especially if it arrives suddenly, is the disorientation; the inability to determine exactly where I am, or how to proceed to get where I need to be. If

I’m not prepared, that disorientation quickly leads to anxiety, and even panic, if I were susceptible to that. Panic is never a good thing, and it rarely leads to smart decisions or prudent action. So, it’s good to be prepared, mentally prepared, and equipped with the proper gear.

One of the most beautiful explanations I have ever read of the kind of disorientation fog can create came not from a mariner’s journal but from a naturalist’s book, *The Immense Journey*, by Loren Eiseley. In one of the essays, Eiseley talks about taking a walk on a foggy morning. In his own words...

“On the particular morning when this episode occurred, the whole countryside was buried in one of the thickest fogs in years. The ceiling was absolutely zero. All planes were grounded, and even a pedestrian could hardly see his outstretched hand before him. I was groping across a field, following a dimly outlined path. Suddenly out of the fog, at about the level of my eyes, there flashed a pair of immense black wings and a huge beak. The whole bird rushed over my head with a frantic cawing outcry of such hideous terror as I have never heard in a crow’s voice before.

All that afternoon that great awkward cry rang in my head. Merely being lost in the fog seemed scarcely to account for it. I even looked once in a mirror to see what it might be about me that had so revolted him that he had cried out in protest to the very stones. As I worked my way homeward, the solution came to me. The borders of our worlds had shifted. It was the fog that had done it. That crow, and I knew him well, never under normal circumstances flew low near men. He had thought he was high up, and when he encountered me looming gigantically through the fog, he had perceived a ghastly and, to the crow mind, unnatural sight. He had seen a man walking on air, desecrating the very heart of the crow kingdom, a harbinger of the most profound evil a crow mind could conceive of, air-walking men.” (Author’s note: If you’ve never come across one of Loren Eiseley’s books, and if you love nature, and enjoy the English language used in a lyrical, pictorial, and beautiful way, track down *The Firmament of Time*, *Darwin’s Century*, or *The Immense Journey*, by Loren Eiseley. You’ll read them again and again, and think kindly of me for the rest of your life. I believe they’re all out of print, but a great library might have them, or a fantastic used book store.)

St. Mary’s Bay has that kind of fog. I can remember a couple of years when it had that kind of fog, day after day, from early May until mid-July. That was almost as cruel as the year I mentioned in paragraph three. If we have a year like that, this year, when I have a new sailboat moored in a berth that always has water under the keel, I’m going to be one grumpy chronicler.

With any luck at all, it won’t be that kind of summer. But, sooner or later, I imagine we’ll get caught out in the fog. That’s going to be a bit of a learning experience. Having done most of my sailing on inland lakes, I haven’t had to cope with fog in any serious way. Even the summer I spent on the Tancook Whaler on Penobscott Bay, we had no memorably foggy days. Had serious fog shown up, I suspect the skipper, being of a conservative nature, would have made a small fire in the woodstove and declared it to be “...a reading a good book day, not a sailing the boat day.”

So, I am going to have to bone up a bit on coping with the fog. There's some pretty good advice in my well-thumbed copy of Roger Taylor's *The Elements Of Seamanship*. To wit:

"Fog complicates greatly watching for things you might hit and keeping from hitting them. If ever it is important to watch carefully, it is important in fog.

It is very hard to judge distance in the fog, so when you first see the loom of something coming out of the fog, it's hard to know whether it is something big fairly close, or something small very close. If you hear the fog signal of another vessel ahead of you, slow right down and proceed with extreme caution until you hear the fog signal of the other vessel astern of you."

Well, that's all good stuff. One hopes one will remember it, especially the first time one gets caught out in the fog.

Of course, one of the advantages of sailing in a bay is that I know I have land on at least three sides. Even a dollar store compass should give me a pretty fair indication of where the shore I want to get closer to, but not bang into, is.

Assuming there is enough wind to keep a boat moving (which is not always the case in foggy conditions), one advantage of a shallow-draft vessel is that I can put her right along the shore. This will keep me out of the way of that big scallop dragger chugging into the harbor to off-load the catch.

Worse comes to worse, I can always drop the hook, hoist a radar reflector, and

wait 'er out. Find that book I carefully stuffed into a water-tight baggie, break out the thermos of tea, sprawl out on the flotation cushions, relax and enjoy the time on the water. I, too, can declare, "...a reading a good book day, not a sailing the boat day."

Wait for the stream to turn fair and scull home, since if there's fog, there's probably not going to be much of a sailing breeze either. Then too, if a breeze does make up, it won't be long before the fog is dissipated and we can get back to the business of sailing the boat.

Sitting here in my cozy basement office, that all sounds okay. If the reality turns out to be a lot different, you'll no doubt be reading about it in a future Chronicle. Now, I'm off to pull the winter cover and refinish the furniture in the C&L.

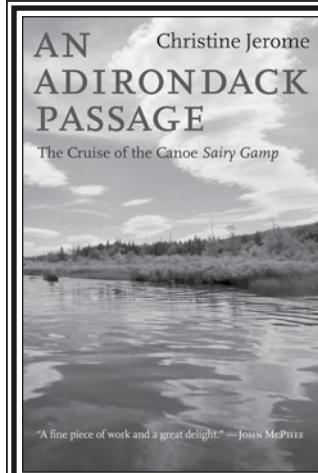
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As long as oil stays above \$100 a barrel, companies respond worldwide. For instance, activity in the North Sea has picked up and daily rates for the powerful anchor handling tugs that deploy a drill rig's anchors soared to \$170,000 (£111,000) while rates for platform supply vessels reached about \$30,000 (£20,000). Those rates may go higher because many newbuild rigs will arrive in the coming months and years.

For the deep offshore industry, 95 drilling rigs are being built, an all time high and almost one third of the fleet in service. Some 88 jack-up rigs and at least 30 floating production storage offloading vessels are also currently under construction.)

Labor relations were not placid. The strike by 450 Hong Kong dockworkers ended after 40 days when they accepted a 9.8% pay increase. The strike caused a backup of 80,000 to 90,000 containers. At Portland, Oregon, a terminal operator locked out its unionized work force, claiming it had been "engaging in 'inside game' tactics, including slowdowns, work-to-rule and demands for repeated inspections of the same equipment." The union accused the terminal operator of planning the lockout for months and aiming to use it to break the union local.

And at the Port of Vancouver in Washington State, another terminal operator indefinitely locked out its union dockworkers workers last February after accusing a union official who worked there of sabotaging equipment in retaliation for the contentious ongoing contract negotiations. (Video surveillance and other evidence apparently showed that a union leader intentionally sabotaged equipment, resulting in \$105,000 in damages.)

#### **Thin Places and Hard Knocks**

**Ships sank:** On the Mahakam River in Samarinda, East Kalimantan, Indonesia, the overcrowded ferry *Karya Indah* sank after the mostly woman passengers crowded into the bow. While the vessel reportedly was well equipped with life vests, the passengers did not use them and only 21 of 44 were saved. The victims are all employees of plywood companies.

**Ships hit things:** In the case of the Chinese freighter *Xinchuan 8*, it was a pier on the Nanjing Yangtze River Bridge. The ship and its cargo of 12,500 tons of limestone then drifted off and sank about two miles away but all 18 crew members had been saved five minutes earlier. While departing at Barcelona, the ro-ro *Eurocargo Genova* damaged its bow when it came in contact with the concrete loading ramp.

But two other allisions were far more newsworthy. At Genoa, the ro-ro/container ship *Jolly Nero*, under control of two tugs and a pilot, failed to complete a sweeping turn into a basin and toppled the port's 177' high traffic control tower into the harbor. It was shift change time and 13 people were in the tower or its elevator. Four survived. (The elderly vessel was built in 1976 as the *Axel Maersk*, part of Maersk's six vessel A class featuring containers cells forward of the superstructure and a series of vehicle decks crowded in aft.

A decade later, Maersk made changes to the A class vessels, swapping bows, changing engine room stern sections from steam to diesel, and adding 40' midsections. Five years later, the rebuilt vessel, renamed *Adrian Maersk*, was chartered to the US Navy's Military Sealift Command as the forward-positioned ship *SP5 Eric Gibson*. After that,



## Beyond the Horizon

By Hugh Ware



#### **Sad News**

Hugh Ware has suddenly departed our world and gone "Beyond the Horizon." In late May, shortly after submitting this, now his final, column he suffered a massive brain hemorrhage from which he did not recover, despite the short three mile trip to the hospital near the retirement community where he and his wife Joan lived. After just over ten years of gracing our pages with his commentary on the world of big boats, he is gone.

Hugh went out still doing what he wished to be doing with his life late into his 80s. His monthly column appeared in several maritime trade publications and he continued in an active role in the Tugboat Appreciation Society of the Americas, which was his main line of interest in his retirement years. Until recent years Hugh served that organization as editor/publisher of its quarterly journal, *Tug Bits*, which he brought up from an erratic plain vanilla newsletter to a very professional quality full color journal. Not surprising, as he was a very professional retired technical writer from the greater Boston area high tech world.

Despite this background Hugh enjoyed the small boat world of *MAIB* and when he suggested I run his column monthly back in 2002 we gave it a try and, to my surprise, he struck a chord with many of you. I guess that inside many a small craft enthusiast is a closet big boat guy trying to get out.

For a number of years Hugh worked closely with my daughter, Roberta, who undertook to do his *Tug Bits* pre-press production work just as she has done for us for so long. She summed up her experience working with him with, "Hugh was a very nice man."

True indeed. We all will miss his presence on these pages.

---

it became the *Maersk Alaska* until its sale in 2006 to Linea Messina, an Italian company that has a dozen other vessels with names starting with "Jolly."

And in the US, unlike conditions not so many months ago, inland rivers in the US were running high and fast. On the Mississippi River at St Louis, 114 barges broke free and 11 sank.

(When one broke loose, it bumped into another barge and knocked it loose. Those barges knocked into other barges, creating a domino effect. As a Brit might say, it was a beautiful demonstration of the knock on effect.) Farther south at Vicksburg, other barge accidents and sinkings involving at least 30 barges closed the Mississippi for several days. In Illinois, seven barges allied with the Marseilles Dam. When waters subsided, inspection revealed multiple damages to several gates. The damage did not pose additional flooding risk to downstream communities but, as the water levels continue to recede, the decrease in depth of the pool between Marseilles Lock and Dam and the Dresden Island Lock and Dam will mean no use of the Illinois River for several weeks. (On several inland rivers, a series of dams create pools of virtually currentless water, thus aiding upstream passages.)

Groundings, too: In the Philippines, the Supreme Court approved a petition for a writ filed by a multi sectoral group seeking higher penalties (somewhere between \$16.8 million and \$27 million) and the criminal prosecution of US Navy officers for allowing the mine countermeasures vessel *USS Guardian* to run aground on the Tubbataha Reef in January. The petitioners claim the US Navy cannot invoke immunity under the Visiting Forces Agreement. They also want the Supreme Court to stop military exercises between the Philippine and US forces. The petitioners include two Catholic Bishops and the Navy has already agreed to pay \$1.4 million for reef damage.

Fires and explosions, of course: While en route from Valencia to Takoma, a fire in the accommodation area on the container ship killed two but the cargo was untouched. At Hamburg, the ro-ro/container ship *Atlantic Cartier* had a car deck fire among 70-80 vehicles bound for the US. Two fireboats, multiple fire engines, the tugs *RT Zoe*, *Hunte*, and *Bugsier 9*, three police launches and five volunteer fire departments fought the fire and two problems all night; the 25 tons of CO<sub>2</sub> ordered by the firemen were not available in Northern Germany and the fireboats' monitors proved to be puny. Next day, the damage was 30 Volvos destroyed, about 40 more severely damaged and the ship needing far more than band-aids.

People died: The capsizing of the Swedish America's Cup challenger *Artemis* at San Francisco fatally trapped the team's tactical strategist underwater for about ten minutes.

But other people were rescued: Off Louisiana, the offshore supply vessel *Lady Brandy* notified the US Coast Guard that a man and a woman aboard the 36' sailing vessel *Escape Pod* were in distress due to a damaged sail and rigging and requested assistance. A chopper hoisted both and a laceration on the woman's leg received medical attention. Later, the *Escape Pod*, its jib still set and flapping, was towed to Port Fourchon by the 220' supply boat *Paul A. Calais*. In Thailand, the offshore patrol vessel *HTMS (His Thai Majesty's Ship) Pattani* rescued approximately 455 tourists stranded on Tachai Island in Khura Buri district about 80 kilometers away from the mainland. Bad weather incorporating thunderstorms was the reason for the rescue mission. In Alaska, when the 31' sailboat *Etak* lost power, the sole occupant EPIRB'd for help but didn't respond to radio calls. So a Coast Guard helicopter lifted the uninjured man 200 miles southeast of Sitka. The *Etak* was left to drift.

### Gray Fleets

The US Navy created a drone aircraft squadron for the first time. Helicopter Maritime Strike Squadron 35 ("Magicians") has both manned and unmanned vehicles that will accompany US warships into battle across the world. Included are eight traditionally piloted helicopters and a yet to be determined number of Fire Scout MQ-8 B drones, each capable of being operated at a distance of 110 miles away and maintaining flight for half a day straight. Look for the aircraft to operate from the new Littoral Combat Ships in about a year.

An influential US Navy publication noted that the US Marine Corps is almost as large as the entire British or Japanese militaries, and suggested the Corps might be too big for its own good. For example, at about 200,000 strong, the Corps is larger than the active duty Israel Defence Forces and the active duty British Army.

Torpedoes must be dropped from very low altitudes (100 feet or so) but an add on kit will allow the lightweight Mark 54 torpedo to be dropped at 30,000 feet and glide for seven to ten minutes before jettisoning wings and other bits and entering the water. Meanwhile, the targeting aircraft can stay high and well away, maintaining its surveillance. Most of the add on equipment is already used on other air dropped munitions.

An award winning US Navy computer predicts the vulnerability of shipping to pirate attacks.

Fire on a nuclear sub always is news, even the minor deck fire on *HMS Torbay*. It was on top of the outer deck just below the fin and was put out by a crew member before the fire service arrived. There was no damage to the submarine.

### White Fleets

Wind gusts caught the cruise ship *AIDA-cara* while it was departing from the Vippetangen Cruise Terminal at Oslo. Both ship (a dent in its stern) and quay (minor damage) survived the resulting allision. The ship redocked for a quick checkout and departed late.

CCTV footage showed a woman in the process of divorce perching atop a railing on the *Carnival Spirit*, and then she plunged into the Tasman Sea. Her boyfriend, a paramedic, followed. Nobody noticed their departure and neither were found.

Carnival Corp agreed to pay the US government for the expenses of Navy and Coast Guard vessels involved in the tow of the fire stricken *Carnival Triumph* into Mobile, Alabama. The Coast Guard's estimate? \$1.5 million. Similarly, Carnival will pay another \$1.5 million for government services connected with towing the fire stricken *Carnival Splendor* off California.

[Carnival Corp's ten brands (Carnival, Holland-America, Cunard, P&O, Seabourne, P&O Australia, Costa, Princess, Iberia, and Aida) and their 101 cruise ships carry 48% of the cruise business, while RCL Group (40 ships), MSC (13), Norwegian (12), and 33 other companies have another 115 ships.]

### Those That Go Back and Forth

A woman told rescuers that she had a newborn infant in her arms when she "threw herself" off the *Superfast VII* ferry at Belfast last May. Her tale triggered a massive but fruitless search lasting ten hours over two days. The sad affair ended with her in court charged with wasting police time.

A deckhand who was acting as fourth officer on the British Columbia coastal ferry *Queen of the North* was found guilty of criminal negligence causing death. The ferry had missed a scheduled turn and struck Gil Island and sank, killing two passengers. Prosecutors suggested he was distracted by the female quartermaster because they were arguing or having sex. They had recently terminated a love affair.

At Douglas on the Isle of Man, the island ferry *Ben-my-Cree* struck a berthing fender (probably what is called a dolphin in the US) hard enough to need some quick patching above the waterline. No passengers were hurt.

In the Orkney Islands, ferry crews refused to take on additional duties to cover absent crewmen over the Bank Holiday so passenger and cargo trips were cancelled or ran late. The ferry company is owned by the Orkney Islands Council, which has insisted that increased costs due to an increase in basic pay must be funded by commensurate savings in other costs of employment but offered a 1% pay increase anyhow. The three unions said this is unacceptable as it is less than the rise in the retail price index and that the *maritime sector is a special case as the Council will be unable to recruit suitable staff if the current workforce leaves* (italics added).

Elsewhere in the Orkney Islands, a broken crankshaft disabled the Stromness-Scrabsterferry *Hamnavoe*. A week later, it limped south to Rosyth (near Edinburgh) on the other engine for repairs abut the ferry may not be ready in time to carry music lovers to the four day Orkney Folk Festival. Ferries on other routes can fill the gap but that means revellers must own and use cars to drive to the Festival. The ferry owners put the cargo-only ferry *Helliar* on the route and expressed its managerial pride at handling the situation thusly, "We are pleased that we have managed to secure a suitable location to repair the *MV Hamnavoe* at short notice."

The creditability of some foreign press reports is low. Take this one, "Over 100 passengers today had an escape when a ferry in which they were travelling developed a technical fault in mid Brahmaputra here, officials said. Inland Water Transport's MV *Kaziranga*, en route to North Guwahati from the city's southern part, developed a technical snag and started moving at a rapid speed upstream" they said. IWT authorities were immediately informed about the problem and another ferry was dispatched to rescue the passengers" (italics added),

### Energy

Many oil production wells also produce gas and it may be uneconomical to get to a market so it is commonly burnt off in gas flares, a waste of energy and a polluter of the atmosphere. The gas consists of useful methane plus heavier, harmful hydrocarbons such as ethane, propane and butane. This gas cannot directly be used as an engine fuel because it causes knocking or uncontrolled ignition but eliminating the harmful components could raise the methane level to useful levels. Now this conversion can be done onsite so the methane can be used in suitably designed engines to generate electricity.

The Supreme Court in Belize ruled that offshore drilling contracts issued by the government in 2004 and 2007 were null and void, effectively ending the government's immediate effort to allow offshore oil drilling in the Mesoamerican Reef, the second largest bar-

rier reef in the world. The reef is a UNESCO World Heritage Site and a popular travel destination made famous by legendary ocean explorer Jacques Cousteau. The court cited failure to assess the environmental impact on Belize's ocean and expressed concern about a company's financial abilities. (It was the operator of hotels and casinos before being given a secret concession to drill for Belize's oil.)

### Nature

Because the tail of a seahorse is made of boxes based on four overlapping L-shaped armored plates it can be compressed to about half its size before permanent damage occurs. Researchers hope the same concept can be used to create a flexible robotic arm equipped with muscles made out of polymer. This might prove useful in medical devices, underwater exploration and unmanned bomb detection and detonation.

A California woman pleaded guilty to feeding killer whales in the Monterey Bay Marine Sanctuary without a permit. She operated a whale watching business and apparently wanted an edge over competitors.

### Odd Bits

If you have the time to waste and a computer, why not search for "smallest trans-Atlantic crossings." You will find mention of a 3'-10" boat and the tale of one sailor who sawed another inch off his tiny boat after an unsuccessful attempt.

A relatively new forecasting model using four predictors with above average predictive values predicted a 72% probability of a major hurricane making landfall along the entire US coastline this year versus a 52% average for the past century. For the US East Coast including the Florida Peninsula, the probability of landfall is 48% versus a 31% historic record. For the Gulf Coast from the Florida Peninsula to Brownsville, Texas, the probability is 47% versus a 30% record. The model also estimates that the Caribbean has a 61% probability versus 42% historically of experiencing a major hurricane landfall. These higher than historic probabilities will keep the US petroleum industry and nervous types everywhere on edge during the upcoming season.

It may be hard to believe but an anchor chain can become knotted while a ship is at anchor. Such happened to the port anchor of the tanker *British Eagle* and the knot became apparent when it tried to unmoor at Rotterdam. Divers and two cranes managed to untie the knot in a little more than four hours.

It was Cowes Week 2011 in Great Britain, a time when very proper sailboat racing comes to the forefront, but the world watched with amazement as the racing sailboat *Atlanta of Chester* ignored an exclusion zone, sailed across the bulbous bow on the oncoming tanker *Hanne Knutsen*, lost its mast on a protruding anchor and scraped down the length of the tanker as yachts jumped overboard, leaving an injured man on board.

The sailboat's skipper, a Royal Navy officer, recently denied three charges of flouting maritime laws by cutting across a narrow shipping channel as the tanker navigated the Solent. (The specific charges were failing to keep a proper lookout and two charges of impeding the passage of the 830' long tanker.) A trial has been set for October. (It's a surprise to many sailors but a sailboat does not have the right of way if the other vessel is constrained to a channel. See COLREG, Rule 18 (b).)

Let's take a little time off from this narrative and jump ahead a bunch of years and tell a little yarn about a sailboat named *Princess*. No, I know what y'all are thinking, you're thinking about Joe Richards' book *Princess*, where he finds an old Friendship sloop, *Princess*, spending years fixing her up before finally setting off on their dream of finding a deserted island to inhabit. What's that? Who's "they"? Why, Joe and *Princess*, of course!

Anyhow, let's get back to my *Princess*. I loved Joe's book so much that I had to have a *Princess* of my own. A few years ago, after reading *Princess* for the umpteenth time, I decided that I just had to write my own *Princess* story. I just naturally borrowed a bit of Joe's writing style in a few stories. Just bear with me a bit, I promise that everything will work out OK. So settle in, hang on and away we go.

Did I ever tell you about how I met my girl (sorry, Joe)? No, guess not. So here is the way it all happened. I'd been living in the North Carolina mountains for several years. No water. No boat. No sailing. Now, a sailor without a boat is a miserable thing, doncha know. To ease the pain a bit I'd been designing boats in my head and dreaming of moving back to the coast someday, probably when I retired.

But before y'all get to feelin' too sorry for me, things weren't all that bad. I had my other girl, my wife Debbie, and son Peter. They are my real life and blessings from God. Family is what really matters. But have you ever tried sailing on people? Just won't work! No way!

One day I was out, feelin' a bit sorry for myself, cruisin' around the back roads of my little mountain town, when I saw her, a broken down, worn out, rotten plywood Charles Whitholtz 17' catboat lying in the weeds in

## The Making of a Princess

By Chick Ludwig

a backyard. Call it serendipity if you want (I almost named her that, by the way). I wasn't even looking for a boat. Certainly not a rotting hulk. But what can you do when you fall in love?

I immediately whipped the poor car around and pulled into the driveway. Coming out of the garage was a man who I recognized as an old friend I had known for several years. Talk about a small world! I'd known Jim and his wife, Sue, from our work together in the Boy Scouts. Sue had even told me that they owned a sailboat. I took all of that as a sign that I was destined to take the poor old boat off their hands.

Right now is a good time to throw in a bit of wit and wisdom, I don't have much of either, but here it is, just for y'all. "Love is blind," "there is nothing as satisfying as hauling some old junk home to fix up" and "God protects babies, fools, and people who drag home old junk." OK, enough of that, back to the story.

She had last seen water 15 years before when she was brought up to the mountains from her home on Chesapeake Bay. Since then she had lain in the backyard collecting ants and rot spoor and waiting for some poor sap like me to fall head over heels for her. Jim said he had just been letting the kids play in her for a while and was then planning on a bonfire of her remains. He had a use for the trailer she was sitting on. I couldn't let that happen, not to so fine an example of the boat-building art like this. No way, Hosay!

Jim agreed to open her up and let me take a look. Well actually, open her up was not quite accurate, she was already pretty well "opened up" if you catch my drift. My first look at my love. What a mess. Her cabin top was rotted through and a covering layer of fiberglass was curling up. The aft cabin bulkhead was rotten and home to a very active colony of giant red ants. I dug around the dirt and leaves on the cockpit sole and pushed my hand right through. Her decks were falling in and her outboard motor was a solid mass of corrosion. Do you catch the direction of the way we're heading here? Rotten! Actually, the hull was surprisingly sound.

This was MY kind of project, cheap, would you believe free? Go figure, a fine boat like this. The sail had been in storage and the spars were aluminum so they were fine. A genuine catboat. A deal was soon made for a few dollars cash (remember, Jim had a use for the trailer). But it was all mine now, ALL mine. While I rushed back home for my truck, Jim

pulled the whole sorry mess out of the weeds with his tractor and pumped up the tires.

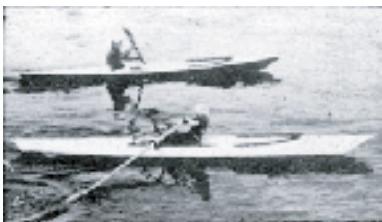
Debbie would be so thrilled to see what I was bringing home! Hey, if y'all believe that one, you better join the babies and fools that I mentioned a bit earlier. It would be a year and a good bit of money before *Princess* was ready to go to sea again. And she about sank at the dock when she was first launched. But that's another story for later.

I guess I'd better tell you a bit more about how I came to name my boat *Princess*. Way back when I was working for Charlie Morgan at Morgan Yachts, I read a series of installments of the book *Princess* that was running in a sailing magazine at the time (*Sail Magazine*, maybe). Remember back at the beginning of this story I told you about that *Princess*. By the way, you'd better hustle out and find a copy of the book somewhere so you'll know what all this fuss is all about. I was enthralled, fascinated and otherwise really liked that book! But I guess you've figured that out by now.

Let's drag all this together and get to explaining. A few years after my Morgan years, about ten actually, I was telling my new wife, Miss Debbie, about how much I loved that book. Just to give you an idea of this, I called her *Princess*, all of my boats since then *Princess*, even our Golden retriever *Princess*. Are y'all catching on now? Well, Debbie went out and found that book! And so begins a new generation of *Princesses*. Let's just dedicate these stories to the memory of the original *Princess* and to Joe Richards who loved her.

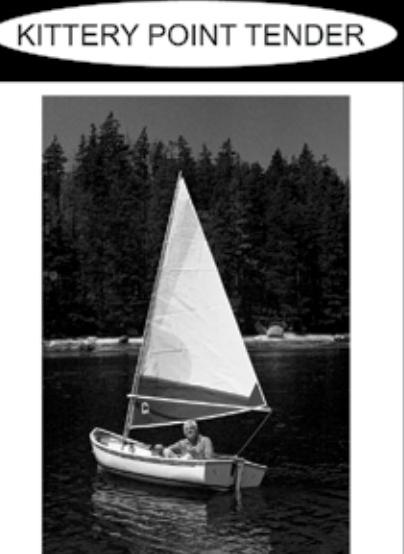
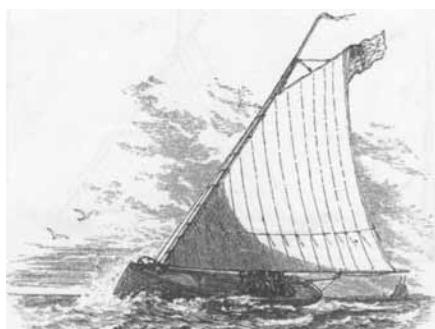
Maybe later we can come back to some more stories of rebuilding and sailing with *Princess*. You should know that we did move back to the coast of North Carolina, at the lower end of Pamlico sound. But that's all for now, so y'all have a pleasant sail now, ya hear?

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# Water Log

By Mike Bill

With the weather finally breaking in early spring in the Northeast, I was pretty sure that everyone had, at this point, already taken the cover off the boat and started on the preparations needed to get back on the water. Despite my crazy work schedule, I'd even managed to get the cover off of *Caleb* and had scoped out a plan to tune up the varnish coats in the next few weeks.

Now that I had all figured out, it was time for a road trip vacation in Florida! One of the highlights was to drive to Sarasota to attend the 8th Annual Gulf Coast Traditional Small Craft Festival, now hosted by the Sarasota Sailing Squadron. This festival, recently exiled from Cortez, has found a new home at the "Squadron." Not be confused with the Sarasota Yacht Club, this organization was chartered in 1947 dedicated to the "promotion of recreational sailing, cruising, sailing instruction, boating safety and youth sailing instruction." Over the past 65 years its membership has flowed and ebbed and is now a very strong 800, with more than 700 sailboats either moored or stored on the grounds.

The hosts, and especially its Commodore, David Jennings, opened up their facility to the region's TSCA members. Despite overcast skies and pretty strong winds in the morning, we all got to see some of the TSCA member vessels and, after lunch, see them out on the water. Of particular note was the first sailing of *Viola May*, a 19' Ness Yawl (Ian Oughtred design) built by Clayton Seelgen of Naples, Florida. His hull is the first one built using seven staves per side, which gives the boat a more traditional look.



Clayton will be showing *Viola May*, named after his mom, at the WoodenBoat Show in June and will be participating in the Small Reach Regatta. Be sure to stop and say hi to Clayton and his wife Lori this summer!

Another real treat arranged by David was to have noted architect and yacht designer Tim Siebert give a presentation on his "retirement career." Tim has a lifelong attraction to sailing vessels cultivated by his father, a naval captain and engineer, who encouraged Tim through the creation of half-hull models.

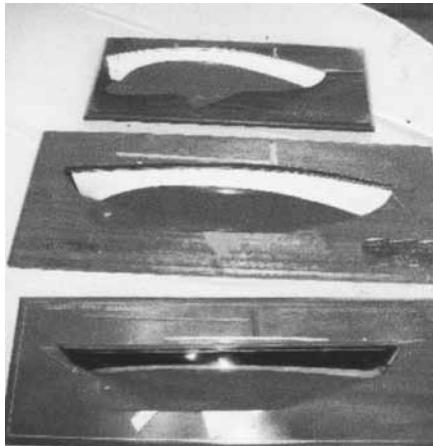
His first, at age 14, gave him the appetite. He sailed throughout his career and upon his retirement started creating half-hulls that led to plans and formal yacht design, and ultimately to the receiving the 2012 *Classic Boat* magazine Design of the Year for his yacht *Calusa*.



# Delaware River TSCA

## *The Mainsheet*

Newsletter of the  
Delaware River Chapter TSCA



Tim's presentation was indeed a treat. His "toe in the sand" demeanor belied his true intuitive skill and common sense design techniques. It was indeed an honor to meet the man, pick up and examine his half-hulls and leaf through blueprints with the designer there to point out their features and, in some cases, even their acknowledged compromises implemented to accommodate the local sailing conditions or vessel configurations required by the eventual owners.



All in all, the event was a success. With the continued support of the Sarasota Sailing Squadron and its excellent location and facility, with the contributions of individuals such as Clayton and Tim, I would expect that this event will soon forget the controversies of Cortez and grow way beyond its infant years.

Now, to get back from vacation and get caught up on my maintenance chores!



### About Our Delaware River Chapter TSCA

The Chapter meets the first Tuesday of each month at the Red Dragon Canoe Club, Edgewater Park, NJ. The meetings are open to all. Anyone wanting information should contact Frank Stauss at [fstauss@verizon.net](mailto:fstauss@verizon.net).

I became interested in building a Melonseed sailboat at the MASCF in the fall of 2010. At the time I was sailing my small 15' canoe and finding that it really wasn't big enough for my size. I'm 6'4" and weigh anywhere from 260 to 270. During the festival I met Mike Wick and several others who had Melonseeds and we started to talk and discuss the options of one style of small sailboat over another.

On reviewing my garage's length vs width and the storage requirement for my woodworking business, I decided the Melonseed was perfect for me. I could build the boat in the space that I used for my van and still have sufficient room to get in and out of my woodworking shop. So after hemming and hawing, reading reviews on the internet and talking to friends, I ordered the plans for the 16' Melonseed designed by Mike Barto from the Wooden Boat School's store. They arrived on January 12, 2011.

The first thing I did was label the plans per the one page list of instructions. After reading other boat plans, schedules, lofting requirements, tables of offsets, etc, I found that the labeling process is very helpful in understanding how the boat is put together. I then started a "Cut List" to determine how much lumber I would need and the type of lumber that I would need.

I quickly found out that this wasn't the place to start. There are so many pieces of various wood types and lengths that it's hard to get a realistic list together. So I decided to make a model of the boat to the scale of 1" to the foot. Here's the sequence of events that followed for the building of the Melonseed hull.

#### **Summer of 2011**

I purchased a sheet of 1/8" birch plywood, a book of tracing paper, a can of spray adhesive and started tracing out the scaled plans for the Melonseed. I then cut out the station molds, formed the stem and transom and assembled them to a "to scale" ladderback form.

After doing all of this and recovering from bronchitis, I started to put "to scale" planking on the model. As I was moving along on the planking process I happened to drive up and see Mike Wick's new Melonseed project and he suggested that I add 3" to the sheer line of the boat.

So I decided to experiment with the model. This worked well so I thought, why not, and I gave it a try. I thought the extra height of the hull looked good so I decided to keep it as part of the boat. Adding the "to scale" station molds, stem, transom and planks really got me to thinking about the lumber size and requirement for the real boat. Between work, family and spare time I finally finished the model boat's hull about the beginning of the summer of 2011.

#### **Fall 2011**

In October I finally had some time to concentrate on the Melonseed project and I went ahead and purchased the necessary plywood to build the station molds. From the model I determined that I would need ten sheets of 3/4" plywood for the molds. I decided that I would make the molds from imported birch veneered plywood. This plywood has very few, if any, voids and the veneered face is great to draw on.

Well, when I went to order the plywood I found out that it came from Peru and the

## **Melonseed Sailboat Build Part 1**

By Don Kerr

plant that manufactured this plywood had a fire and shipments would be delayed for who knew how long. My supplier had 14 sheets in stock and I decide to buy all of them thinking that I could use the extra sheets for other parts of the boat. I also ordered four pieces of S/P/F lumber @ 2"x6"x16' for the mold's ladder back. The total cost was \$513 delivered. November/December 2011

I started tracing the plan's described station mold patterns. I then glued each station mold tracing to 1/4" lauan plywood, added the extra 3" to the sheer and determined the distance from the plan's baseline to the top of the mold. I did the same for both the transom's mold and the stem. Once all the station molds were on 1/4" plywood I faired each mold on my shop built stationary disc sander.

I like to use 1/4" plywood for a mold template to assist in transferring the proper curve and dimensions to the permanent mold material. Some will probably say that this is an extra step but after building four boats, I can assure you that it's time well spent. This method also assists in utilizing the best space on the 3/4" plywood mold.



#### **January 2012**

Over the New Year's weekend I started cutting out the boat's permanent molds to the lines drawn on each mold from the 1/4" lauan plywood. This was quite a process balancing the 4'x8' sheets of plywood in my workshop and then cutting them out with my jigsaw.

I soon found out that a standard up-cut jigsaw blade doesn't lend itself to a clean cut line. The plywood splintered terribly so I changed to a down-cut jigsaw blade. Using this type of blade is harder to start but the end result is much better to work with, all the splintered edges are on the inside of the mold.

I was able to make a jigsaw cut to 1/8" from the traced line. By the end of January all the molds were cut and sanded to their individual mold lines. The sanding was challenging and I found the best solution was to build a mobile stationary disc sander from some parts I had hanging around my shop. It is important that the surface be square to the sides of the mold.

While taking a break from all the sanding, I thought a change of pace was in order, so I built the 16' mold ladderback. On completing the ladderback I found that it was quite unwieldy and decided that I would make legs for the mold with 6" wheels. This worked great.

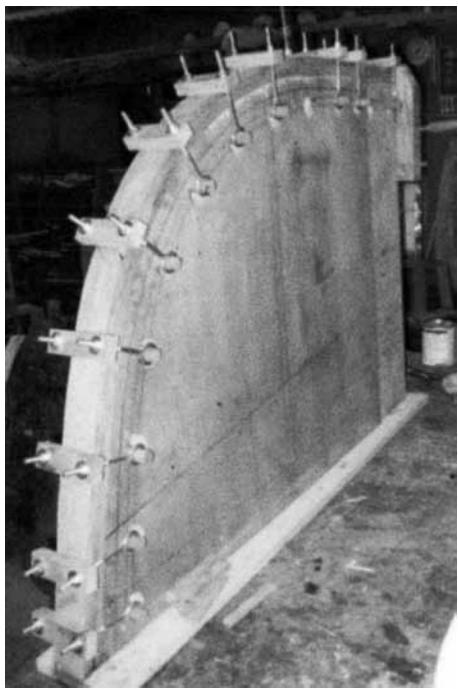


#### **February 2012**

The next step was to build the stem's mold. I followed the plans and built a plywood form to bend the stem. For a uniform bend I found that I needed many, many clamps, and since I didn't have sufficient clamps, I made clamps using two 5/16"x6" eye bolts for clamps. Here's what I did. I drilled 1" inch diameter holes in the bending form and then used 3/4" dowels that went through the eyes of the bolts and attached a short length of wood to the top to form a U-bolt type configuration. These bolt clamps work extremely well as they don't leave a cupped area in the middle of a piece of wood like a C-clamp does.

To make the stem, I purchased a white oak board that measured 2"x6"x6?" and ripped the oak into 17 1/8" strips. The white oak board cost \$37. As you may know, white oak bends extremely well but it needs to be soaked in water prior to bending. I then soaked eight strips in water for three days and bent them around the form. I found that the white oak bent easily without having to steam the wood. The downside of water soaking the wood is that it took a long time to dry, particularly in March. So to speed the process I decided to glue the strips together with Gorilla Glue. The moisture content in the wood aided the polyurethane glue to form a tight bond and formed an interior stem that had little if any spring back.





### March 2012

Wouldn't you know it, we had several weeks at the beginning of March that were mild enough to start placing the molds on the ladderback frame. My fellow boat builder friends, Bud and Ben, came over one day and we temporarily placed all the molds on the ladderback. We attached 2"x4"x48" lengths of lumber to the edge of the mold that met the ladderback.

Once these were attached, we attached them to the ladderback with 3" screws. All the books make it sound so easy to place the molds on the ladder back and instantly they'll be aligned both laterally and horizontally. Well, that didn't happen in this case! It was a real job to make sure that each form was aligned to the center line. We needed to use a shim here and there but we did it. All the molds were in place and the stem was attached to the first and second station molds. At this point I had spent 57 hours working on the boat and spent \$866.20.

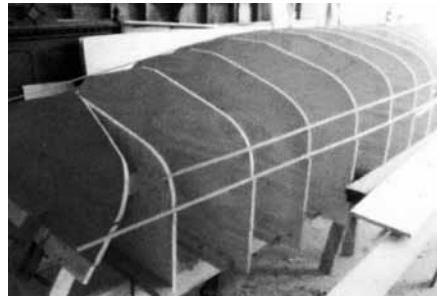
### April 2012

Now it was time to make sure that the station molds created a fair line for the boat and that the sheer had a nice fair line. Although each station mold was created from the plan's drawings, I found a number of hollow spots in the station molds. I believe part of the problem came from adding the additional 3" to each station mold and I didn't have a fair curve at the sheer with the additional 3".

Therefore, I had to determine, was I going to add the 3" to the stem or the transom? I decided I'd add the 3" onto the transom and therefore assumed that the overall hull shape would ride better in the water with a fuller stern. Using the new transom sheer line as a reference, I created a fuller aft and center for the hull and kept a fine entry on the stem. Now I determined a new sheer line for the starboard side of the boat.

This entailed adding and subtracting shims on the side of the each station mold. I used the starboard side as a reference and then transferred these measurements to the port side of the boat. At last I had a fair sheered boat! Now the task of making sure that each station mold did not have any hollow spots. I did this with battens placed both diagonally and lengthwise on the boat's hull. After a few shims were added to the station molds the boat's shape received my final approval. At this point I had invested 73 hours in the construction.

(To Be Continued)



### April 26

We have a lot happening for the next several weeks in addition to our regular Friday night boat building. Bruce has started a project list for some of the smaller parts of the *Nina* that individuals or pairs can work on at the benches to help speed our progress on the boat. So there is something to do for everyone.

The annual Pine Island cleanup/picnic is just over a week away. The week following Pine Island the Connecticut River Museum is running its "Row for the Rum" race as part of the "Burning of the Ships" festivities in Essex. Our chapter may be providing our dories for this event. This race is short and fun with a bottle of rum going to the victorious team, so lets try and get a crew together to represent the JGTSCA at this great event.

I just heard from Russ Smith that he has started another TSCA chapter the "Thames River Chapter". I believe Russ will be rowing out of one of the Yale boathouses with the youth groups he has been working with. This is good news and great opportunities for collaboration and joint efforts between our groups.

I would like to thank once again everyone who pitched in and helped to get the dories ready for the season, this maintenance is important and not easy to do, so more hands made the load lighter.

## John Gardner Chapter TSCA News

[www.tsca.net/johngardner](http://www.tsca.net/johngardner)  
By Phil Behney

### May 2

Good progress is being made on the *Nina* building jig. Sunday is the Pine Island cleanup/picnic so lets get the shop picked up this evening in preparation. I will be bringing two of the boats over this evening. For the upcoming Connecticut River Museum "Row for the Rum" race, Shirley has rounded up 2 crew and is asking for more volunteers to man a 5-person gig at the race so please step up, we are a rowing club!

### May 9

The Pine Island event was a good time for all who attended. Only a few Scouts came this year, but we filled all of our boats with our own members plus Andy and George provided a motorboat that George built from a modified "GlenL" design. Ellie cooked, Sandy, Jim and Jean provided bread, stew, potato salad and more for the picnic. Thanks to John Hacunda and all who pitched in to make this event a success!

Friday nights continue to be very productive with Bruce leading the way on the

*Nina* project, we have good support and have attracted some new members. This Friday we will continue adjusting the molds preparing the transom and more. The next steps include beveling the molds, notching the molds to accept chines and the keelson, drill holes in the molds to accept clamps, and acquire plywood for the bottom. If you have signed up for a side project be sure you are paying attention to when your pieces will be needed.

### May 16

We are continuing with the *Nina* building project. George has cut out the transom station and started the stem, so we will need to mount the transom and prepare for fairing of the molds. The Spring 2013 issue of *Ash Breeze* has a nice article on page 4 about the "Nina" so check it out!

### May 23

Last week we laid out the template for the stem, we now have 'bow and stern templates, so lets get them installed on the building jig so we can fair up the molds.

Important upcoming dates include our annual tag sale and The Small Craft Workshop/Wooden Boat show at the Seaport. Lets start gathering stuff to make the tag sale a memorable event!

Check out our web site and our Facebook page to keep up to speed on all things happening within our small craft community.

## Have Sawzall Will Sail

By Jay Goldmart

A short time ago the opportunity presented itself for me to acquire Bill Chewning's Dovekie *Selah*. I have always had soft spot for double enders, particularly shallow draft small ones. Over the years I have owned and modified a number of these craft to my liking, from a Nordica 16 to a Skipper 20 to a Nimble 24 and other boats in between, the common thread being boats that can sail on thin and thinner water. I have always been drawn to the simple beauty of the Dovekie, I think it's the way the sail plan and leeboards are integrated with the hull shape.

Bill Chewning's craft was set up for single-handed shallow water motor-sailing. The only issue for me as I sat in the cockpit of *Selah* was the unusual feeling of being in a completely opened boat (albeit with a small forward cabin). Don't get me wrong, I have a Jon boat, about as open as one can get, which I have rigged for sailing with leeboards, a rudder, and unstayed sprit rig. But the Dovekie felt too open to me after years of sailing in boats with self-bailing cockpits.

As I can't leave well enough alone, I decided to rearrange *Selah*'s two quarter-berths behind a watertight bulkhead. I reasoned that in the event of a knockdown or partial one, the forward half of the boat could be sealed off and be made watertight. While scheming about how the layout should be sorted out I hit my head on the radar arch like boom/mast crutch quite a few times. My thoughts went from foam padding, to hard hat, to Sawzall. I know what you're thinking, he hasn't even gone for a sea trial and he is sawing his boat up. Doesn't he know the design has a loyal following! The only thing I can say in my defense is that I have a sailor's back (cranky as I get on in age) and I'm not willing to have to crouch and duck my head twice to go forward.

So after two weeks of ownership, in the middle of the winter my wife and daughters heard the familiar whine of the circular saw, "there he goes again!" One obstruction (Figure 1) was on the ground of my boat shed, now what to do about the main hatch coaming? Well, with some judicious Sawzall work I cut the coaming flush with the bulkhead so I can walk in a straight up manner to the mast tabernacle. What a difference freedom from ducking makes! My plan was to fiberglass the bulkhead, build a traditional double door hinged cabin hatch in the V-shaped cut out, and call it quits until my first season sailing *Selah* was over.

Figure 1: Gallows removed.



30 – *Messing About in Boats*, July 2013

## The Shallow Water Sailor

Newsletter of the Shallow Water Sailors

"A Simple Boat, a Bit of Marsh, a Red-wing's Song and a Friend or Two"  
[www.shallowwatersailor.us](http://www.shallowwatersailor.us)

While sitting on the tight quarter berth bunks it occurred to me that there was barely enough sitting headroom below to get in and out of the bunks. My plan was to make the Bolger design more "Birdwatcher-like" by adding a raised 10" removable Lexan cabin side that would nest in the existing main hatch drain molding. I reasoned that I could sail *Selah* in four different modes. One, the simplest being main top hatch removed (Figure 2), the next being Lexan side extension panels in place and no top hatch (Figure 3). Either of these configurations would allow unobstructed walking paths forward to the mast as long as I don't trip over the bottom 6" of bulkhead.



Figure 2: Main top hatch removed.



Figure 3: Lexan side panels installed.

The next two configurations provide more protection for rougher weather. One being main hatch double doors closed, Lexan extension panels in place and existing main hatch covering the works (Figure 4). This arrangement reminds me of Matt Layden's micro-cruisers. Finally the last configuration for a real blow; main hatch closed with double doors in place and capped with existing top hatch battened down and sealed off from any water coming on board the front half of the vessel (Figure 5). Hmm, now about that back half, what about a self bailing cockpit and inboard motor well where the cedar bucket goes? ... just kidding!



Figure 4: Main hatch in place.

Figure 5: Cabin enclosed with double doors.



### Digging Deeper Into *Selah*'s Modifications

By Bill Haberer

Jay Goldman's article, "Have Sawzall, Will Travel," in the recent *Shallow Water Sailor* was most interesting and just another page into what can be done to these great Dovekie boats with a little imagination. However, *Selah* has been the subject of continual changes ever since Bill Chewning purchased her as Dovekie #66.

This is especially true as Bill got up into his 80s. First, he redesigned the sailing rig to be a little shorter and lighter, made of round aluminum instead of the heavier wood and a whole lot easier to raise. He also devised a roller reefing system where the sail wrapped around the mast, which was easier for him than the original roller reefing hook. Not having seen it for some time, I forgot exactly how it operated but it was clever. His sail handling was done from the cockpit, also. Perhaps John Zohlen or others who lived in the area could expand on these and other details of the special rig.

Bill also toyed with the idea of powering *Selah* using a heavy flywheel with pedals on it and a shaft leading out of the stern to a propeller. The idea was to use a properly geared chain drive system that would allow him to be able to easily generate enough spin on the heavy flywheel to eventually power the boat at a reasonable rate of speed with little foot power! He figured that it would be easier for him than rowing. I never dared to ask again as I was in over my head now!

The designed berth plan for Dovekies always was the rear cockpit sole which is wide and long with plenty of height under the "back porch." However, as Bill got older and found it more difficult to get "off the deck," so to speak, he built two bunks in the forward cabin on top of the storage bins. Others had done this as the usual minimal amount of moisture on the cockpit sole bothered them. (At E&D we finally found a ½" plastic mat that all but eliminated this problem.) Bill sailed with his son to help out so two bunks were necessary and Jay is so right when he stated that there was literally no room below! However, it worked for Bill and that's all that mattered.

By far the most interesting and practical addition was the "hard top" he devised. As the pictures show, it could be either open or closed.



Yes, it did limit the great openness of the large cockpit, but it gave Bill the protection he desired. It also worked well with the cockpit controlled operating system Bill devised for the sail. He had curtains to close off the open areas at night and had the only solid Dovekie cockpit cover I know of.

Before reading Jay's article, the last time I had heard about *Selah* she was in a salvage yard in Virginia, I think. A poor end of a noble boat! Dovekies, having been part of my life for ten years, are close to my heart and I was thrilled to find out that Jay had "saved" her. Thank you, sir! Keep us posted on the progress as what you've done to the cabin looks interesting.

Peter Duff was the consummate tinkerer and would approve. However, you will miss the "radar arch" as it is a great way to store the spars, stand and sail, place a compass, hold the cover, etc, etc. As a standing operating procedure, every Dovekie owner would hit his head on it seven-and-a-half times when they first get their boat! I'm afraid Peter would have been mortified! For your info, Jay, we did build two Dovekies with modified Johnson outboard motors that fit inboard where the cedar bucket goes. No kidding!

## Have Sawzall, Will Sail

### Part 2

By Jay Goldman

I much appreciated reading Bill Haberer's article "Digging Deeper into *Selah's* Modification." When I purchased *Selah* I could see the boat had been gone over from stem to stern by a tinkering genius. Added to the joy of new boat ownership was the pleasure of solving a jigsaw puzzle in terms of all the modifications Bill Chewning (the original owner) had done to *Selah*. I am still trying to sort things out. Does anyone know why the leeboard exterior stainless fittings are unusually shaped (see my February article "Have Sawzall, Will Sail" Figure 4)?

As for as the boom gallows, not to worry, Bill, I have decided to reuse the radar arch behind the cockpit on the aft deck. I had to do quite a bit of trimming and fitting to make it work, but I believe I will still be able to retain the benefits Bill had mentioned (storing spars, standing and sailing and holding the cover) without having any ducking issues (and accompanying back pain). I think the new position will be particularly useful for some kind of boom tent further down the road because of the support provided on the aft deck for a spar (ridge pole).

About that rhetorical flourish at the end of my first article, I still am considering self-bailing and motor well modifications. It looks to me like the cedar bucket storage area would be a natural for a motor well. I have owned a number of vessels with motor wells and their accompanying benefits and drawbacks. For the time being, I have built a canoe style motor mount for my Volvo Penta 39 vintage outboard.

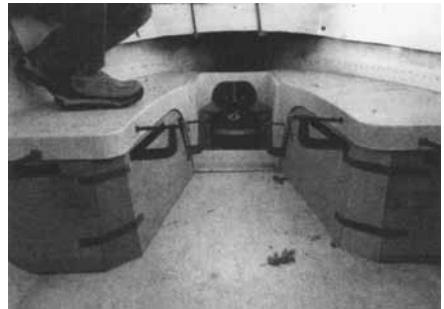
The other important modification that I am doing is enclosing the cockpit seating to create large watertight compartments so that *Selah* will have better recovery capability in case of a capsize. It may seem like I am beating a dead horse, but 35 years ago I was caught in a squall on Barnegat Bay in a Nordica 16. Before I could even attempt to take the sails down, we got knocked down on our beam ends and the boat quickly sank from under us.

We had just enough time to jump for the Sportyak dingy (which we had been towing). When hit by the storm winds the yak had flipped upside down, somehow I was able to right it while standing on the sloping transom of my sinking ship. My wife Ann still had the bailing bucket in her hand as we were swimming for the dinghy/life raft.

We floated around in the bay for a few hours without oars or any other equipment (which had been washed away), until the storm subsided and a lone clammer rescued us. The subsequent salvage and recovery mission is a story for another time. However, after recovery of the boat, I discovered on inspection the craft's flotation compartments were completely full of rain water from chainplate leaks, explaining why the boat sank so rapidly.

## SWS...Our Purpose

The purpose of the SWS is to share members' sailing experiences and know-how. It is through this sharing that sailors are made and friendships gained. With such skills and relationships sailing becomes more than a past-time, it becomes a life-long pursuit, a source of joy and rich memories.



A very important part of the appeal of the eastern rivers of the Chesapeake Bay is the prevalence of marshland. This holds the promise of endless exploring and a lot of nice snug anchorages for those with shallow draft boats. The apogee of marsh cruising is perhaps the area southeast of Taylors Island, itself at the mouth of the Little Choptank River, our spring cruise destination this year.

Here is found the Taylors Island Wildlife Management Area and the Blackwater National Wildlife Refuge. It has an abundance of low land cut through and through with serpentine waterways, basically a whole lot of muddy, marshy goodness. When Jake Millar proposed a cruise to this area in October, 2009, specifically to attempt to sail around Taylors Island via the rivers, creeks, marsh and bay, I signed on readily. Little did I realize how contrasting these two days would be.

We met at the public launch ramp behind the Taylors Island General Store. Altogether there were five who made the trek, Jake and Phil Sampson with their Dovekies, Harry Mote with his Shearwater, Dana Gunnison bringing his Sea Pearl and I had my Peep Hen.

Right away I almost fell off of my boat when rigging it on its trailer. The primary cause was that my boat was filthy. I didn't clean it before hooking it up and heading down the road and the coating of grime on the deck did not make for good traction. Lesson learned, a clean boat is a safe boat. While I was rubbing the knee that I fell on, Harry pointed out that good boat shoes aren't a bad idea either.

After setup, Jake, Harry and I enjoyed a nice supper together in the General Store before setting off to find an anchorage for the evening. Phil and Dana would join us later, so we ended up in a nice spot in the Slaughter Creek Broads, close enough to the ramp to link up with the late arrivals.

The next morning gave us wind from the south and predicted to build, so we planned to sail Taylors Island in a counterclockwise direction out the Little Choptank River, down the Chesapeake Bay, into Punch Island Creek at the southern end of Taylors Island. After spending the night, we would then travel through the marsh back to the Slaughter Creek Broads, sailing if possible. We got underway and milled about in the general area of the ramp until Phil was underway and joined up. Off we sailed for the Chesapeake Bay.

The sailing plan started to unravel quickly for me. I reefed before getting into the Bay, which was good, but the wind was on the nose and gusting. Wind-driven waves in the Bay were big and it didn't look much better ahead. The boat was under control, but my hands were full and I was completely

## The Tale of Two Days

### Dr. Jekyll and Mr Hyde at Taylors Island

By Morry Kapitan

occupied with constant tiller and sheet adjustments to make sure the boat addressed the next wave or gust appropriately. Not enjoyable, but doable.

Then I started thinking ahead. If things didn't go perfectly, I might be trying to find the entrance to Punch Island Creek after sunset. The wind would still be high with large waves on the shoals at the entrance, so I would have to hit it perfectly. I really couldn't take my hands or attention off the boat to keep track on the chart, and I had never seen the mouth of the creek before so I wasn't sure how easy it would be to pick it out against the low-lying topography.

As a result, I put my tail between my now firmly clenched buttocks, put the helm down and ran back into the Little Choptank. Harry was way ahead and I had lost track of him, Jake and Phil were just ahead but my hands were so full I couldn't manage even a call to them on the radio that I was throwing in the towel. I was surprised to see them follow suit when I looked back out towards James Island and saw them coming back in also. We really got our hat handed to us by the Bay. As I rubbed my still sore knee I thought this was just not going well at all, and Mr Hyde was definitely in control of our cruise.

We regrouped in the Slaughter Creek Broads anchorage. Harry spent the night near the ramp with Dana, who had arrived near sunset. The wind was supposed to be from the south through the next day, so we decided to motor through the marsh and make an assessment of the Bay once at the mouth of Punch Island Creek. If the Bay looked reasonable, we would continue with a clockwise transit of Taylors Island. Harry indicated he would sail outside and meet us somewhere along our route.

Once Dana was launched, he didn't get far before experiencing outboard motor trouble, making it as far as the Taylors Island bridge and deciding to scrap the cruise because of the balky engine. The day was already starting off the wrong way.

Once Dana was back at the ramp Jake, Phil and I set out. Channels through the maze of the marsh are marked with sticks, it is just not so obvious whether the sticks mean to continue on course or turn. Luckily we only

really made one seriously wrong turn, and I found myself standing on the cabin top with binoculars looking over the marsh grass to spot the next stick and the way out.

If we were piloting kayaks, canoes or other close to the watercraft, getting out of this jam might not have been so easy. The marsh in the Slaughter Creek Narrows and Punch Island Creek is a tremendous sight. We sailors don't like to motor, but to get to this place was a worthy application of two hours running the auxiliary engine. We were surrounded by channels of water, marsh grass and hammocks of fast land here and there.

The weather started improving during our transit. The wind speed dropped and the sun was out and warming things up. Likewise, our expectations for good conditions once at the inlet to the Bay were rising. And we were not disappointed! After lunch near where Punch Island Creek meets the Chesapeake Bay, we made sail and proceeded up the Bay towards the Little Choptank River.

It was hard to believe we were sailing on the same water as yesterday. The boats were almost sailing themselves. In fact, Jake insisted on "hanging ten" off of the bow of his Dovekie while it sailed itself up the Bay. I am not sure what it is about New Jersey Dovekie sailors and their need to do these types of things, but I have seen a similar display on the stern of a Dovekie in the Wye River. It made me scratch my head, but I did produce pictorial proof for this event, it is not a fish story.



Jake "hanging ten" on the Chesapeake Bay.

We did meet up with Harry again in the Little Choptank. The circumnavigation of Taylors Island was complete. Docile Dr. Jekyll had finally made an appearance and we were rewarded with a very memorable cruise.

Sedge in the Marsh.



Slaughter Creek morning.



# Judy's Melonseed

By Dave Lucas

Here's the finished version of Judy's little 13' melonseed that I made a few changes on. It was built by a master builder according to the plans but you know what I think of sprit rigs so I changed things a little.

Dumped mast and spars (or whatever they call those stick things), made a new 14' lightweight mast that I can pick up with one hand, and a boom and gaff from a cedar tree I planted.

Cut out the dagger board trunk, made a 3' long slot in bottom and installed a center-board trunk and board.

Made a new deeper rudder and Museum John made a custom tiller.

Raised the oar locks using bubinga wood.

Installed CUP HOLDERS.

Put a three-dimensional wooden art block made by Helen from exotic woods on the hatch.

Put a pipe in for the mast so it wouldn't slip and break the deck out.

Made a knob for the drain plug from pecan wood.

Ran the mainsheet up and forward on the boom and down to a swiveling main sheet cleat.

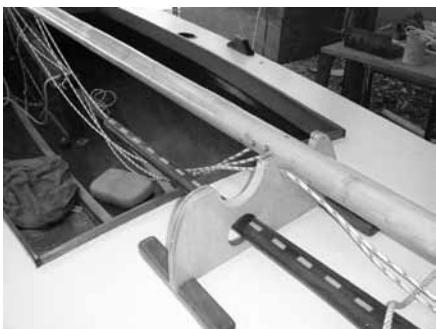
Put turning blocks under the deck for the two halyards and ran them back to the cockpit through cam cleats for easy adjustment.

Painted the deck with Sherman Williams marine coating.

Notice how the sail has a perfect shape, not a single wrinkle; that's achieved by small adjustments of the peak halyard as wind conditions change. All of the control lines are within easy reach to the skipper.

I put her name on the side and reconfigured the trailer for easy launch and retrieval. I did this little job for nothing to see how good I could make one of these little boats. *Freedom* is very light and accelerates like a greyhound with the slightest puff. I plan on making a couple of these boats for myself and sure hope I remember what I did with this one.

And no, I won't make one for you. Jim took these pictures from my dock and got some good shots.





## Crystal River's Scow

By Dave Lucas

We couldn't make it up to Crystal River for their big bash this spring but some of us went up the day after mainly to see the giant scow they're building and are getting close to finishing. This thing is fantastic, hard to believe that they did all this by hand and I mean hand only, no power tools at all. Have a look inside their tool storage, pretty primitive looking isn't it, not even an extension cord. Everything is so massive, it's mostly pressure treated 2"x6"s, some even doubled and the mast is a cypress tree. See the leeboard, it's 4" thick. They say the sail will be something like 600s. No motor, they're making a little tugboat as a push boat.

The two scraggly looking guys sitting in the hold are Steve Kingery and Whalen, the two who use the whip to keep things going and it would take a whip to get most of us to saw this lumber with a hand saw. They let me play with the wooden bilge pump, it really pulls a lot of water out.

For more about the CRBB go to: <http://www.tsca.net/CRBB/>



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# Skipjack *Rosie Parks*

## Restoration Update

By Eric Hervol and Shane Elliott  
Reprinted from *The Chesapeake Log*  
Journal of the Chesapeake Bay  
Maritime Museum

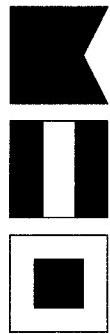
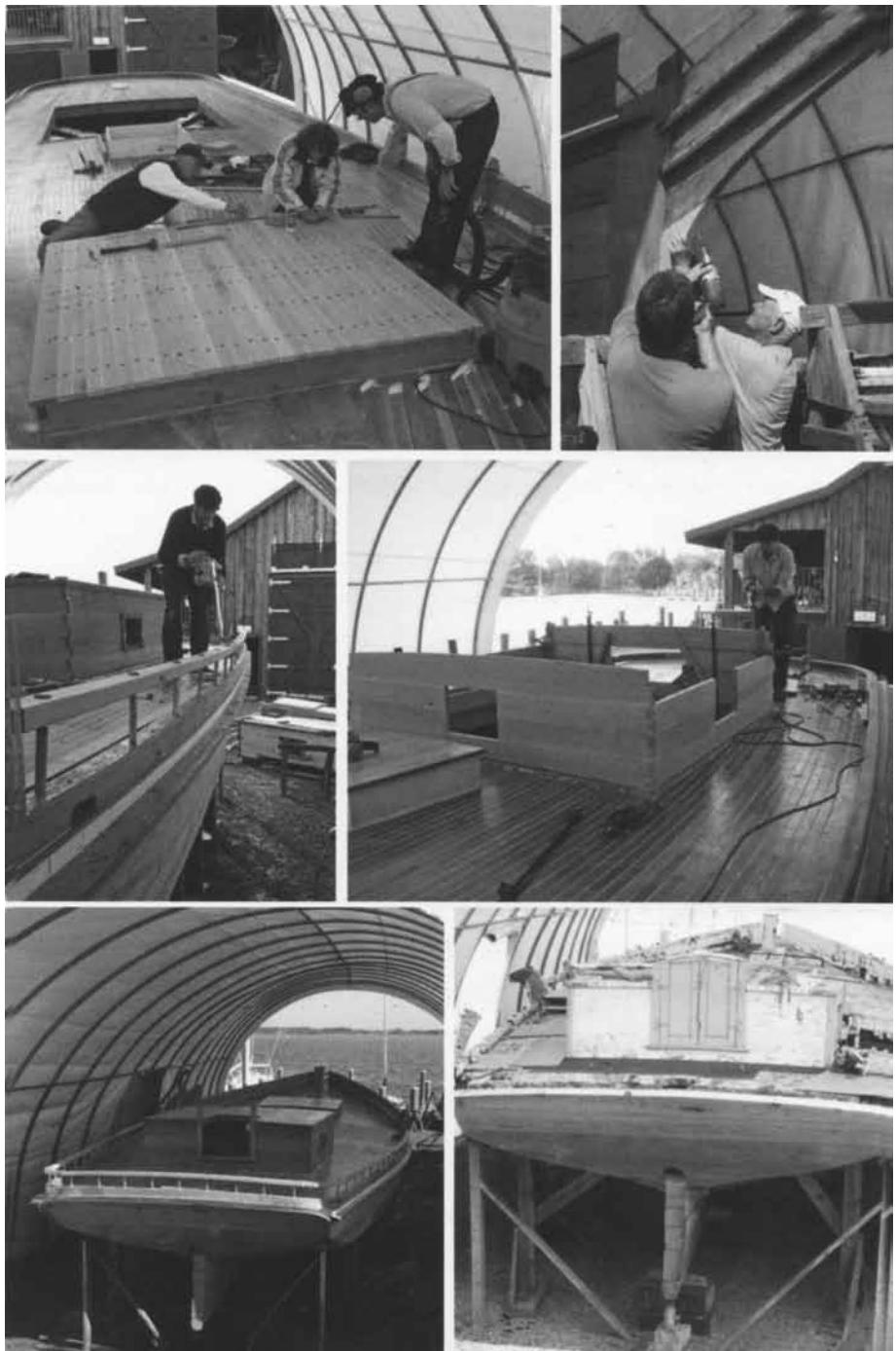
Restoration of the skipjack *Rosie Parks* continues with topside work after the completion of caulking and sealing the deck. The skipjack's topside configuration includes one main forward hatch built in two sections, a small hatch aft, and a deckhouse large enough to shelter three to four people. In the fall of 2012, the shipwrights began work on the Douglas fir and white oak forward hatch. This work consisted of installing the hatch sides, or "trunk," an oak ledger, oak beams and fir top strakes. The hatch was built as one unit, and then cut into two pieces while in place to ensure a tight fit.

After the forward hatch was completed, the deckhouse was built in its similar fashion. The existing deckhouse was too rotten to salvage, but was intact enough to measure for replication. The sides were built with the rough window and companionway openings in place, to be finished later. With a consistent rough opening, the cabin windows were then built all at one time on the bench and installed after varnishing.

Next came the monkey rails, or low rails, along the sides of the boat, aft of the oyster dredges amidships. The rails were patterned from the shape of the existing boat, cut out from oak stock, and installed with 1/2" galvanized rod. The rail was then sanded smooth after installation.

As the topside work nears completion, shipwrights will move on to rudder installation and preparation for painting and varnishing. Stop by on Saturdays during the Community Work Days Program and help shipwrights restore the *Rosie*.

**Top row, left:** Sharon Parks Weber and her husband Rob help Shipwright Apprentice Shane Elliott glue bungs into the forward hatch. **Top row, right:** Shipwright Apprentice Ken Philips and Volunteer Cliff Stremeyer drill fasteners in the chicken beak. **Middle row left:** Shipwright Apprentice Shane Elliott drills for galvanized iron pins in the monkey rail. **Middle row right:** Elliott continues to drill for galvanized iron pins while building the main cabin, or the "doghouse." **Bottom row, left:** The overall view of progress on the *Rosie Parks* as of January. **Bottom row, right:** A view of the *Rosie* in January 2011.



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## The Philadelphia Factory One Design

by Brett Hart, Executive Director

By Brett Hart, Executive Director  
The Philadelphia Wooden Boat Factory  
[www.woodenboatfactory.org](http://www.woodenboatfactory.org)  
Reprinted from *The Ash Breeze*  
Journal of the Traditional  
Small Craft Association  
[www.tsca.net](http://www.tsca.net)

My mom took me sailing for the first time when I was six. The boat might have been called a Sea Snark, but I don't really remember. I do remember that it was made of Styrofoam; more like a soda cooler than a yacht, I do remember being terrified. The fear, it turned out, was fleeting.

Back on the dock, away from the threat of sharks and shipwrecks, I eyed the boat with a now familiar longing; I wanted more.

Rewards are not earned by staying within boundaries. In order to grow we must seek both success and failure beyond our comfort zone. I repeat this to our students all of the time. These students are boatbuilders. They are soon to be sailors too. They are as smart and instinctive as anyone I've met. They make us laugh and humble us with the stories of their everyday life.

Me: "And your dad, where does he live?"

Student: "In the neighborhood."

Me: "Do you see him ever?"

Student: "Nah, not for about a year."

They are also as poor as one can be in an American city. Many eat breakfast and lunch at school, funded by federal dollars. Their dinner, they have with us at the shop. The Philadelphia Wooden Boat Factory (PWBF) has become their safe haven in the dangerous hours between school and sleep.

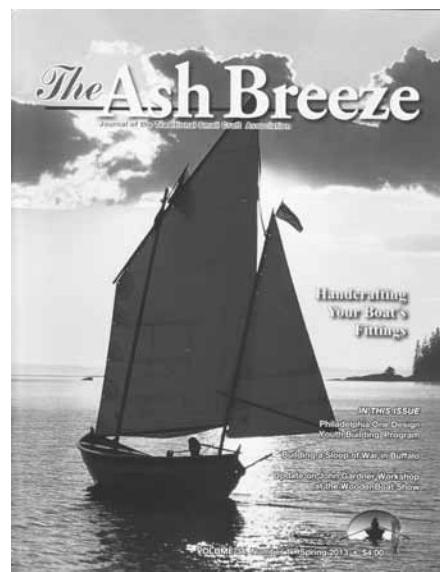
In 2011, the organization piloted its first sailing program using restored Lightning-class sailboats. The boats, weighing close to 700lbs, proved too large for their inexperienced crew. Our staff, fearful, never allowed the students to push the boats to their limits. If you've never pushed a boat, than you really don't know what it's capable of. We needed a new approach.

I found it in the fall of 2012 after reaching out to boat designer Antonio Dias of Narragansett, Rhode Island. In 2002 PWBF founder Geoff McKonly and I built a 14' foot daysailer designed by Tony. Small, a lapstrake wooden boat, evoked pine tar and hemp but sailed like acarbon fiber and epoxy racer. I knew Tony could design a boat to fit our unconventional needs; the Factory One Design was born.

In his blog, "Boats for Difficult Times", Tony discusses "our evolving relationship with boats." As a designer, author and artist,

The Factory One Design is a cedar-on-oak lapstrake racing sailboat that will be both built and sailed by teenagers enrolled in the Boat Build and Sail Program. The teens spent twenty-six weeks with us this past winter constructing the three boats, and the entire summer out on the Delaware River pushing them to their limits. The first three were scheduled to be launched in June. We plan a fleet of ten to fifteen to be built in the coming three to five years.

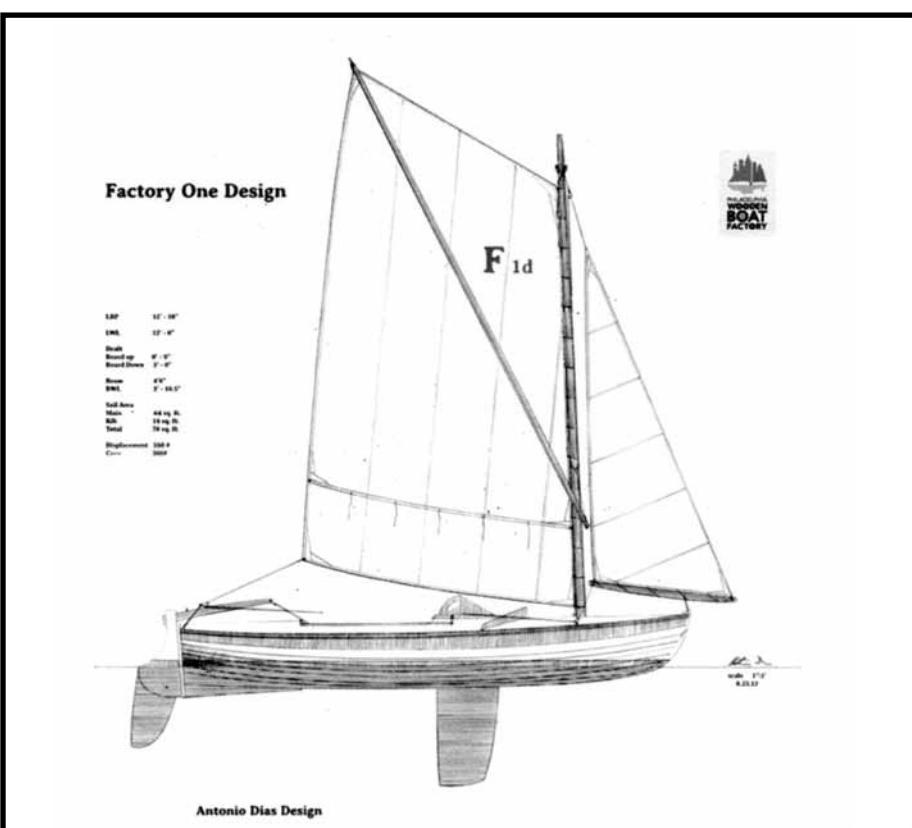
Will the students pull this off and be ready for launching? It remains to be seen. But that's real. That's the world we live in; things are uncertain, require grit and determination, and the risk of failure always looms. When we push ourselves beyond our comfort level, when we test our resiliency we give our mind and spirit the opportunity to grow. I'm looking forward to the ride.

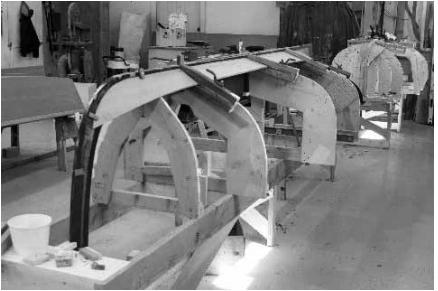


he has been able to see that PWBF's mission and programs are at the core of that evolving relationship. "It's about our relationship with the world and with each other," he writes. Wooden Boat Factory's kids from urban neighborhoods "don't fit into our customary boating categories; they wouldn't have a relationship with boats in the ordinary way of looking at things. The Factory One Design connects them to the traditions of craft, to doing something difficult and well."

Poverty takes its toll on teenagers, sometimes in hidden and misunderstood ways. Our programs encourage collaboration, healthy risk-taking, long-term follow-through, and resilience. Tony was able to create a design that will help us build these intangible skills because he believes in our mission.

After a preliminary visit to our shop in Philadelphia, Tony returned to his drafting table. Two months later he returned with plans for the Factory One Design, and stayed for a week to work with twenty-four of our teenagers lofting the first three boats.





This Sid Skiff was begun by the 2012 Traditional Small Craft class under the direction of Ray Speck. Here, the molds have been set up on the strongback, the backbone is in place, and the garboard planks are being fitted.



Planking is nearly complete.



The last plank, the "whiskey plank", is celebrated with the traditional shot of whiskey. "A little for the boatbuilder, and little to honor the boat". Instructor Ben Kahn leads the 2012 class in the celebration.

When planking is complete, the Sid Skiff is turned rightside up and framed with white oak frames. The as yet unframed Sid Skiff is in the left foreground, a Grandy in the middle right, and a Davis Boat under construction is in the background in one of the School's Small Craft shops



## New Sid Skiff Launched

By Pete Leenhouts, Executive Director  
Northwest School of Wooden Boatbuilding  
[www.nwboatschool.org](http://www.nwboatschool.org)

Students in the Traditional Small Craft Boatbuilding class at the Northwest School of Wooden Boatbuilding launched a new Sid Skiff on April 26. The Sid Skiff is a Puget Sound design, first recorded when master boatbuilder Ray Speck drew the lines for this classic Puget Sound small craft while working as a boatbuilder in Sausalito CA. Ray saw that the harbormaster, Sid Foster, was using a particularly sweet little 12'5" lapstrake skiff to row around Richardson Bay while he checked the moorings. Ray took the little skiff's lines with Sid's permission, and over time, developed them into a range of lapstrake skiffs from 13' to 18' long. Ray estimates he's built over 100 of these beautiful boats so far in his nearly 45 year career as a boat builder.

The 14' boat, which is a fairly standard size, is built by the School's Traditional Small Craft class. The vessel is 13' 6" on the waterline with a beam of 4' on a draft, centerboard up, of 9", weighing about 175lbs in her sailing configuration with her sprit rig. The boats are built between January and June of each year.

This Sid Skiff was started by the 2012 class and finished by the 2013 class. It's planked in western red cedar over white oak frames on a mahogany backbone. It's 13'7" long, equipped with a lug rig, and for sale to help us finance our scholarship programs at the School.

For details go to [info@nwboatschool.org](mailto:info@nwboatschool.org).



Once the boat is framed, interior construction is begun.

When the interior is completed, the boat is oiled with a mixture of teak oil and varnish, which makes for a hard, long-lasting and attractive finish.



Then, the boat is fully rigged, spars, sprit, sail, centerboard and rudder assembly are all added.



Students launched the boat and went for an afternoon sail on April 26th.



The Sid Skiff is a beautiful, functional boat that is easy to sail and trailer.

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# **The APPRENTICE**

A Monthly Newsletter of the Apprenticeshop

## **Nina New Build for Intensive Students**

John Atkin's flat bottomed sailing skiff Nina is a new choice for Intensive students and both Kuo and Roelvink selected it as their focus. For years the Susan skiff has been the A-Shop's "go to" boat for beginners but we have found it lacks the beam to be a comfortable sailing skiff. As we looked for a new sailing skiff to incorporate in the new nine month CORE program, master builder Kevin Carney discovered Atkin's Nina. It is beamier than Susan by 7", uses identical construction techniques, can be built with traditional pine and cedar or plywood planking and allows us to teach spar making.

Atkins describes Nina as "a most practical and useful type of boat. Despite her modest dimensions, from her flat bottom to the tip of her unstayed mast, she is very much of a little ship."

But have no fear, Susan will always be on our list of "go to" boats. We are currently building one on commission and have three others for sale.

### **Henk Roelvink**

Henk Roelvink, 59, hails from Enkhuzen, The Netherlands. A retired lawyer and avid sailor, he and wife Angela cruise on their Dutch designed and built Noordkaper 43' steel cutter in northern Spain and Portugal (visit [www.tanterietje.nl](http://www.tanterietje.nl) for more). He aspires to a three-year circumnavigation of the globe, ending up on the Maine coast to explore it, as he says, "the proper way."

Having attended the Boot Bouw School in Den Helder, The Netherlands, Roelvink has built an Iain Oughtred Puffin and a Walter J. Simmons Sunshine. In 2011, boat building books by Simmons inspired him to visit the designer in his shop in Lincolnville Beach, Maine.

"Simmons told me to visit also The Apprenticeshop while I was in the midcoast, and I did. And then The Apprenticeshop came into my heart and it will never go," he commented.

When asked what he liked about his work since his arrival, he replied, "It has yet to come." He then added that he has enjoyed shaping the stem, fitting the knee and cutting the rabbet. His biggest challenge has been fitting the white oak chines, as they are difficult to dry bend around the boat's girthy bottom.

### **Phoebe Kuo**

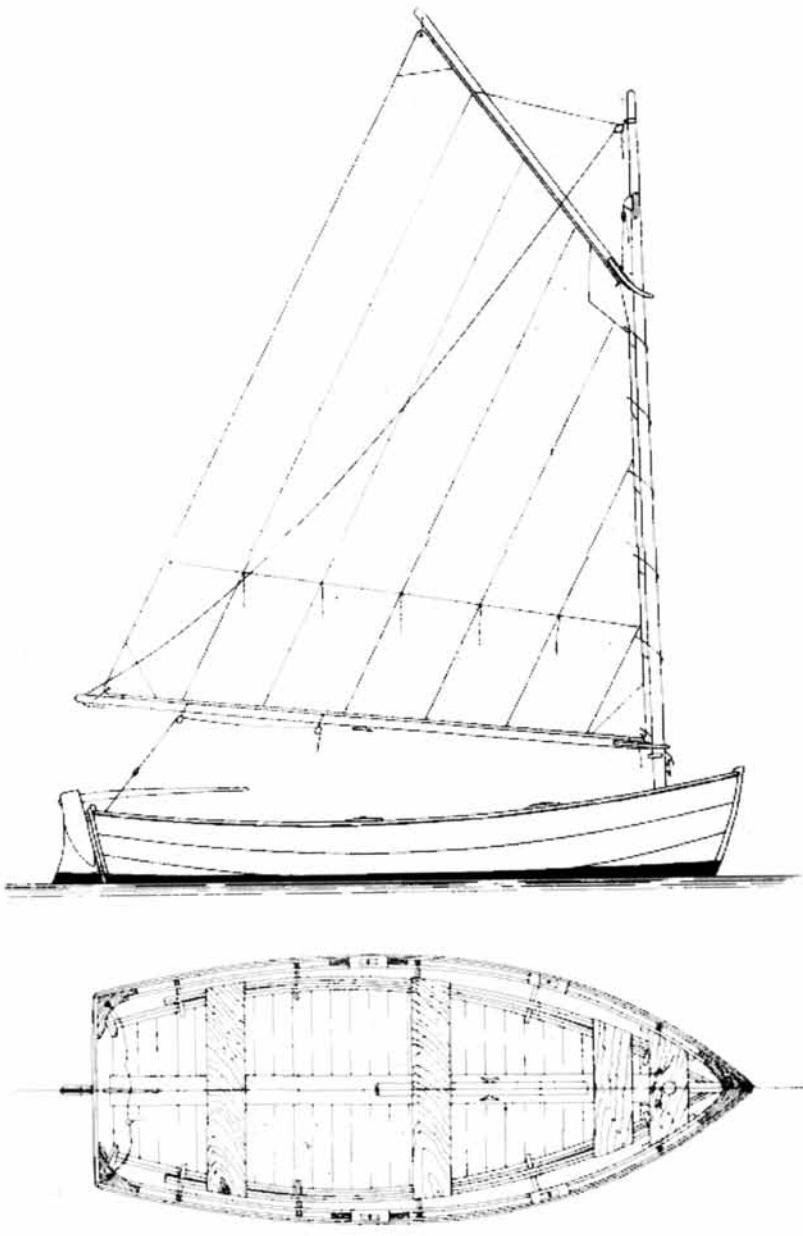
A desire to learn how to build a sailboat and to sail was what drew 29-year-old Phoebe Kuo of San Francisco to The Apprenticeshop to participate in the 12-week Intensive Program. On break from a career in consumer product design research, Kuo admittedly has no experience in boats. But now she is building a wooden sailing dinghy and participating in Rockland Community Sailing's Adult Navigation and Sail class.

Kuo is enjoying the process of making something with her hands while being immersed in a community of craftspeople. Her previous woodworking experience includes weekend projects; a retro 1970s shortboard skateboard, a bed frame and various furniture projects.

"I really had a keen interest in building something round, or at least something without square corners," Kuo explains. "My favorite part of boat building so far is when something that has taken forever to do comes together and fits like it is supposed to."

But the hardest part, she acknowledges, will be having to pack her boat and head back to the San Francisco at the end of June.





**Nina**  
A Flat-Bottom Catboat by John Atkin  
An 11'4" Flat Bottom Sailing Skiff

There is a lot to be said for simplicity. Nina is a most practical and useful type of boat. Despite her modest dimensions, from her flat bottom to the tip of her unstayed mast, Nina is very much of a little ship. She is an excellent craft in which to learn to sail, as well as to learn to become a seaman aware of the ways of wind and weather. She is a boat that will sail safely in rough, windy weather in confidence and with lots of fun. When the wind is more than she can handle in safety and comfort, a small outboard engine will urge her along in good style. How much more practical it is for youngster to learn the ways of the water in such a boat than to use a "skimming dish" rigged with hiking slings and all the complications of far too many of today's "youth training" boats used by yacht clubs.

Nina's dimensions are 11'4" overall with a breadth of 4'7" and 4-1/2" of draft. Nina will carry a cargo of two heavy persons nicely, or three average-size youngsters. Possibly among the best of her features is the fact that she can be built by an amateur or professional boatbuilder for a modest amount of money. Quarter-inch waterproof plywood can be used for her underbody and topsides, as is true of many of the flat-bottomed hulls shown in our catalog.

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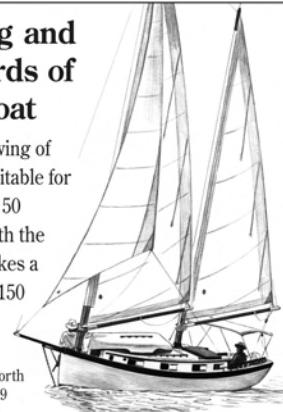
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Our Navy is in a revolutionary period of change. Historic military tactics combined with modern materials and technology present a formidable fleet protection challenge for our Navy today. One of the greatest threats to our Navy is low tech vessel attacks with conventional explosives, as seen on October 12, 2000, when the *USS Cole* was attacked, killing 17 sailors and wounding 39 others and in the continued success of pirates. As a maritime systems think tank, Juliet Marine Systems provides offensive, defensive and ISR solutions that are developed in a skunk works operation able to rapidly invent and construct needed technologies and systems for the Navy and armed forces. We have already developed a surface variant of a super cavitating craft and are planning to apply our unique technology in a UUV prototype.

While the Ghost is a surface vessel, the hydrodynamics of the twin submerged buoyant tubular foils are also a test bed for Juliet Marine's next planned prototype, a

## Meet the JMS Ghost

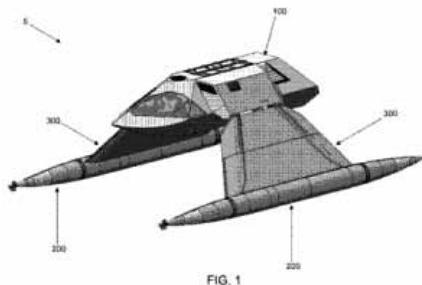


FIG. 1

long duration UUV. The Ghost is a revolutionary proprietary technology vessel platform that will assure force protection through stealth fighter/attack capabilities along with integrated situation awareness. These vessels would create a protective fleet perimeter, providing sensor and weapons platforms, allowing no surface or subsurface intrusions.

The Ghost is a combination of stealth fighter aircraft and attack helicopter technologies packaged in a marine platform. The awesome capabilities of the Ghost are designed to provide a marine surface and subsurface platform for tracking and identification of multiple targets. Systems for integrating onboard weapons will be designed to be capable of multi-target firing solutions while the Ghost operates at very high speed. These weapons integration systems will also allow for attacking several targets simultaneously with a variety of weapons systems options.

The same capabilities that have made helicopters valuable to get to hard to reach locations fast, will apply to the Ghost in commercial applications in the maritime environment. Crew rotations or resupply runs for critical items to off-shore oil rigs can be accomplished two to three times faster than the craft currently in use and would be far less expensive and have fewer weather restrictions than using helicopter assets. The Ghost is two to three times as fast as most ferries in use today.



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A few months back I was making plans for a late winter trip to SOCAL. I figured to visit some friends, find some old footprints, do some sailing even. I called my friend Roger and lined him up to provide me with a flop and a ride from the airport. Both Annie and Kim, of SCUZBUM notoriety, were gonna provide boat rides for this winter weary sailor who now spends the colder months short tacking a snowplow. The very next day I got a call from Roger's daughter. Roger was dead!

I talked to Kim and decided to come anyway, but a bit later. Roger wouldn't be sailing with us. I sent a written tribute to Roger's family and regrets for missing his funeral. I bought another non-refundable ticket. Made new plans. And within a few days had fallen and severely smashed my arm. Flying, and sailing and generally doing anything that didn't involve "elevating and medicating" fell right off the calendar. Probably will be for some time to come.

I'll come to the point of my story momentarily. But first, just a little more background.

The other night I was talking to a friend who lives in San Diego. We normally keep in touch by email, but I hadn't gotten a reply from him in a while. Vince and I used to spend a lot of time together at the Adult School woodshop. Vince had his own projects but he always made time to help me, back when I was continually modifying, repairing and generally "improving" *Lady Bug* before I took her on a couple year road trip all over the western US.

Good ol' Vince was always handy when I needed somebody to handle a wrench on the outside of the hull, or to hold a long board while I wrestled with a hand plane on the wiggly end, stuff like that. Vince recently got out of a month-long stay in San Diego's premier cancer hospital. He lost a bunch of his guts and one kidney. The other one is still wrapped up in a tumor. I'm kinda slow. But one thing is getting a lot clearer to me.

## The Bucket List

### Part One

By Dan Rogers

During these long, quite inactive days where I spent a lot of time literally "watching the snow melt," I devoted a great deal of mental effort to "making plans." Just about all my plans involve boats in one form or other.

We all admit, then fervently refuse to believe, that every boat is a compromise. What I mean is, the boat hasn't been born that I can't figure out how to somehow make "improvements" to. Maybe you know somebody like that.

I call the process, "Simplifying and Adding Lightness." Every boat in my considerable fleet got mentally remodeled over the past several months. Usually I avoid doing boat modification on the spur of the moment. That takes waaaay too much planning. After all, why measure when you can shape things "by eye?"

Suddenly, bereft of the use of my table saw and entire shop for that matter, I had a lot of extra brain cells available to ponder just about every future ("planned") joint and cut and curve. And know what? I hated all that exactitude. Mostly I hate "waiting until I'm better." Now I'm certain you know somebody like that. Spring is here. All the boats are still firmly moored to their trailers; launching, and winching and potentially falling again are all on my surgeon's list of things to not do.

And then, just today, I met a most remarkable lady who finally explained everything. Just about.

Because I only have one arm currently available and that, only sort of functional, I had to hire a kid to mow the lawn this year. In preparation for his initial bout with my lawnmower, I trundled off to the gas station. We live out in the sticks. Everything that doesn't come by Pony Express requires a trip "To Town."

Just as I pulled into the pumps, there was this raggedy looking lady crossing the highway with what looked to be a satchel and a couple of bags perched on a luggage carrier. You know, one of those things you pile your suitcase on and hustle through the airport with.

I rolled down my window and asked where she was trying to get to, figuring there was a broken down car story in the offing. Boy Scout that I am, it never even occurred to me that she didn't actually NEED a ride. When I asked her where she was going, she said quite matter of factly, "Alaska!?" So I asked her where she started out. The reply was, "Chicago."

Long story a bit shorter, I drove her about halfway to The Big City. The weather was closing in. Rain and strong winds in the forecast. And, like I said, this Scout grew up with the mythology of helping Little Old Ladies across the street. And she WAS little, nothin' over 5' if I was to guess. Old? Well that comes to being a bit personal. I'd guess again, but probably about my own age, if you must know. And she's WALKING TO ALASKA. She told me that it was to be her THIRD such venture. She said she simply preferred walking. And she really liked Alaska.

And all day there has been just one question on my mind. "What in the hell am I waiting for? What's really important? And isn't it about time to just quit planning and simply get to gettin'?" Maybe so.

There's an Alaska trip on my own bucket list. No, I don't have a hankerin' to walk that far. But probably the next best thing, with respect to the general level of discomfort. In a small boat, of my own creation. Why? Yeah, I know, the airlines go to Anchorage several times a day.

I think it's a whole lot like with that little (not so old) lady I had the extreme privilege of meeting today. If it's important to you, it's worth doing. Even, if it's hard.

I think I hear my table saw calling.

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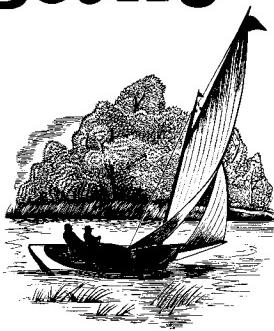
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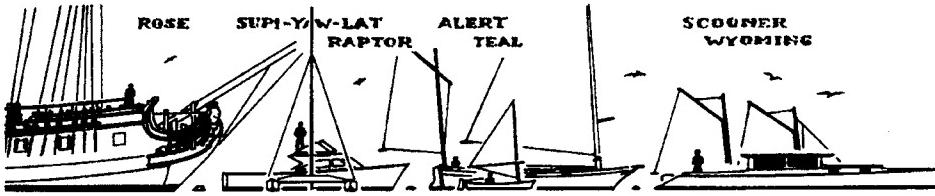
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Design # 633 "Windermere" was first published in the pages of MAIB in Vol. 19, No. 16 (Jan. 1, 2002) on p. 28. She measures 31'x8'3"x10'-12" (7,8000lbs displacement) x 1x50 + 9.9 kicker. Plans have been sold, and we know of one modified hull built and launched recently, and we're awaiting more news and pictures of course.

More recently, last August in issue Vol.30, No.4 on pp.36-39, one concept-study extending her stern by some 7' was discussed, based on the otherwise unaltered hull of #633. This was in response to a couple's interest in an inshore/inland cruiser for two, plus overnight guests, for many months of itinerant life-style on the rivers, canals and stretches of the Intra-Coastal Waterway. Adding to #633's stern allowed a double-berth with decent hanging and shelving spaces aft, left and right of her companionway up to her afterdeck which was significantly added to as well.

Then, after the clients had shared their recent experience aboard an English Narrow-boat which usually measure well-below 7' in beam, the much narrower, ISO-40' container-correct concept-study emerged, as presented in this year's February issue (Vol. 30, No. 10) on pgs. 50-51. Here the idea was to lay out a reasonable two-some-plus cruising interior on a hull-shape that would fit inside one of those steel boxes for both secure storage and also well-protected shipment to wherever on this globe. So she measures 39'x7'5"x7'3" overall height to fit into 'the box'.

Reflecting however upon their primary goal of exploring most likely 'just' this country's vast eastern and central watersheds, the clients decided to forego the 'box-capability' in favor of significantly more generous storage volumes, fresh and wastewater tankage capability, and of course, overall 'elbow-room' on a hull some 12" wider again, on a hull of greater draft and thus overall displacement and at least 8' height amidships and well more forward. With "Windermere 39" we are re-using approximately 45% of the original "Windermere 31" design with her bow-shape and aft towards amidships, but then make her hull a full 8' in beam plus adding a rivers-&-canal-correct 3" rubber rub-rail all around for daily bumping and scraping along, say, the Erie Canal system.

Speaking of the Erie Canal, the north-eastern clients propose to keep her just under 39' to travel that system at a lower fee than a 39-footer would require. For others, producing a more generous afterdeck geometry would be readily doable with a foot or more added to this stern. Not particularly detailed here, her stern davit would fold up vertical to not be charged for that additional length and to not use the dinghy as a 'bumper' in locks and other tight quarters. Discussing her layout in more detail is, in many ways, a mix of familiar concepts and language developed for the two earlier efforts.

This narrative and its range of line art across by now four issues since Jan. 1, 2002,

## Phil Bolger & Friends On Design

For yet another time out away from the SACPAS-3 narrative, here is:

### Concept Study "Windemere 39"

38'10"x8'6"x1'8"/2'3"x2x25-60hp

Now this should look and sound somewhat familiar

is one case study of how a design evolves, produces interesting 'off-shoots' and finally comes to combine attributes drawn from these earlier proposals. Here it is highly likely that this process will indeed result in at least two new designs, the ISO-40 proposal and here "Windemere 39", plus additions (again!) to this new shape to further loosen things up with a longer afterdeck, if not more additions in length and thus layout options for her interior. This could go on for a bit.

In fact, by the time the 'theme' has been fully played out, we'd have a range of inshore/inland displacement speed cruisers ranging from 22'x8"x10hp "Champlain" (Design #636) to somewhere around perhaps 50', offering extended cruising comforts at speeds between 6.5 and 9+ knots. With just up to 8'6" beam these would remain fairly readily 'roadable' without 'oversize' permitting. Of course, none of these would fit inside any container box.

On "Windermere-39" the layout is fairly straightforward, essentially based on the "ISO-40 Cruiser" but with obviously more generous clearances due to the extra foot of beam over that study. And most of it is obvious on these studies. So here are just a few additional notes that should be stated:

Her 'style' is reflecting early 20th-century upright flavors, which also happen to be easier to build and tend to match human ergonomics more than "aerodynamic swoop" flavors ill-placed on an 8 knots boat.

This being just a preliminary study, beyond her hull-shape, and thus profile, many aesthetic details are not touched on here. So there would be a broad range of options to express personal preferences on hard detailing such as for instance a 'visor' along the roof, or just over the helm, additional moldings, 'textures' such as through (mock) vertical staving on the house sides, etc. etc., all that in addition to the usual bewildering opportunities to find the 'perfect' color-combination. Ornamentally edged-glass anyone?

The layout shown is only one of a range of options on that hull, as stated above. Throughout there would be 6'5" of minimum headroom.

Forward two 1+1 dinette setups offer four folks reasonable comfort to get together

for chatting and dining, with another or two on folding stools. With tables lowered, these seats would become the 'guest-quarters' for two visiting souls. The forward seat's seatback flips back and forth to serve as navigator seat to port and helm seat to starboard. Standing room at the narrow helm station is over 6'5". These clients here tend to work hand-in-hand to share in boat-handling and navigating and thus insist on side-by-side positions.

The galley is not too bad with a solid 3'7" base and matching hanging cabinets, plus an optional flip-up 1' extension aft and the option of folding forward the seat back to add another 2' at an overall depth of some 24".

Across the centerline the 'head/' wet-cell' measures some 56" by a narrow 29" offering a toilet aft, shower/tub as floor-space and a decent sink forward; the window should keep claustrophobia at bay. Plumbing volumes would be arranged below and under her centerline 'floor-boards' with volumes competitive with what folks find acceptable for a week or two of autonomy; the roof would offer additional water collection.

Note the bookshelves on the forward wall of the head. Books and a rack for 'reading' devices, plus a few square feet for 'stuff' to keep handy add to both utility and the 'livability' of this limited space; she is after all much narrower than even most RVs.

The 4.5' bed aft should work for folks still in love, or with no such thoughts ever, supported by over 70 cubic feet of stowage volume underneath and the two full height hanging and shelved lockers measuring about 2'x2'2".

The companionway out to the afterdeck measures about 28" at the shoulders with a 7-step stair of medium steepness.

The afterdeck measures some 7' in width by 5'6" in length. The flip-up stern davits support a burdensome "Ruben's Nymph" (our Design #516) usually measuring 7'9"x4'6", but here shortened by just building her with upright bow and stern transoms, with a 2hp outboard in a recess to stay 'hung' in the davit within the 7' overall hull-length limit, with that bow transom suggesting hanging a fender horizontally across her bow to keep the 'spitting' under control.

Her outboards are shown running in a well-ventilated stern-recess, covered aft by a sturdy welded grille to protect these engine and their propellers. Two 25hp large-prop four-strokes put more propeller blade area in the water than a single 50hp would for likely better efficiency. In canal duty, retracting one and running on just the other engine will suffice for 'smoothing' along at best fuel-efficiency. Twin large-prop 50/60s would fit. A low-hp stern drive setup would do with certain modifications. And a 45hp Diesel driving a 17" prop sail drive (plus rudder) would allow turning large alternators to power a/c, windlass, boat-hoist, feed large house battery banks for extended silence on anchor hidden in an oxbow, a bayou or tidal backwater.

As a likely very rarely considered option, an inboard-engine-driven stern wheel would require a somewhat modified belly shape aft and would of course make her longer by the diameter of the wheel.

Beyond the 3x50 gals fuel tanks no further fuel or water and waste tankage is shown yet, but well suggested in light of her good stowage volumes. Two 20lb propane tanks are located in a self-draining position in the bow cockpit.

These clients expressed preference for a longer shallow keel as shown in the outboard profile, for better handling in deeper but narrower canal waters. The inboard profile shows one option for an off-centerboard forward to allow happily grounding out fairly upright in tidal waters.

One could retain the original "Windermere-31" roof arrangements including

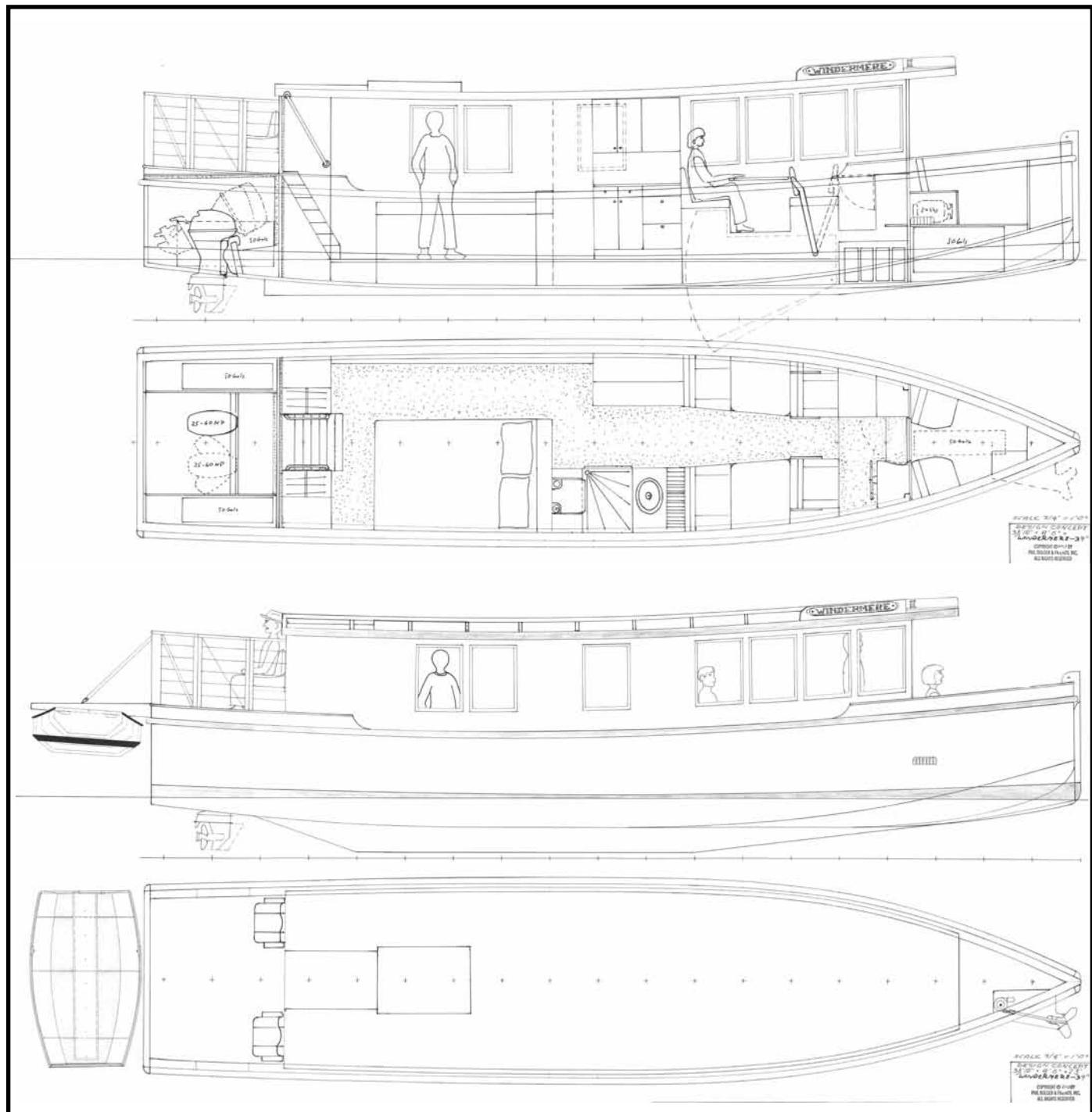
the flip-over davits and their electric winch retraction assist to carry a 14' "Junebug" (#400) sailing skiff and a 6'6"x3'3" Tortoise (#363) punt.

Shown here is just a perimeter railing. Photo-voltaics and rainwater collection are obvious uses for this large rooftop area. Incidentally, these clients prefer the least number of hatches, with this layout just showing her companionway hatch and its 'garage'.

Looking aft from her helm is an obvious issue with this otherwise very comfortable layout. While a full bulkhead with door is doable, these clients prefer no physical division between the forward and the after parts of her cabin. One could look aft from the helm and the 'far-away' glazed aft-companionway. Rearview mirrors left and right of the helm are an obvious addition. But it seems indeed imperative to invest in one

of these by now cheap 'all weather' security-system small-scale TV-camera set-ups, more and more familiar from cars or home-security systems, with such units becoming quite affordable, rugged and very useful when linked to an overhead-mounted panel. Assisted by a wide-angle companionway camera, perhaps a single more pricey "pan & zoom" unit would do omni-directional duty if mounted on her mast. Then there would be the option of infrared/night-vision.

The bow cockpit offers reasonable clearances for two seats, a power-capstan for a 45lb plow-anchor, volumes for line and chain, access to her stemhead for best mooring bit control, plus those two 20lb propane tanks under those seats. Detailing for the anchor's 'cat-head' remains to be done. What is shown here should more or less make its way into a full design.



## Plywood Planking

Planking a plywood boat is not difficult to do and produces a finished hull in fairly short order, but care must be taken to work in a disciplined manner because you are dealing with large areas of glue and many fastenings. Time is a controlling factor because you must accurately align and systematically fasten each panel before the glue begins to dry. Note: When laying out your plywood sheets, always plan the planking so the best or "A" side is on the outside of the hull, and whenever possible, the points of the scarf joints should point aft on the outside of the hull.

### Making Long Panels

It would be ideal, or course, if you could use full-length plywood panels when planking, but since standard plywood is usually only available in 8' long sheets, this presents a problem if your boat is longer than 8'. You can sometimes order longer panels that have been factory spliced with scarf joints. They save construction time and you can be confident in the quality of the scarf joints, which are at least as strong as the plywood itself, but you will pay a premium price for them. There is, however, an alternative. You can make your own long panels using either of two proven methods

### Scarf Joint

Long sheets of plywood can be created by splicing two or more standard sheets with scarf joints. First decide how long the joint is to be. Standard practice calls for a scarf length of 8 to 12 times the thickness of the plywood. For example, at a 12 to 1 ratio, you would use a 3" scarf for 1/4" thick plywood. With modern glues you can get by with the shorter scarf but it isn't much more work to cut the longer one and it will produce a stronger joint, especially if there are any irregularities in the glue joint. For large projects requiring many scarfs it might be good to set up a scarfing jig, which uses a router, but for the few joints you are likely to need you can readily make the required cuts with only a sharp, low-angle block plane.

The length of the scarf is first marked on the face of both panels. If you lay one panel atop the other, with the edge of the top one set back exactly the length of the scarf, you can achieve a perfect bevel by planing both panels simultaneously. A sharp low-angle block plane does a good job of cutting the mixed grain of the plywood. After preparing the scarf bevels, spread wax paper along the under side of the joint. Apply a generous coat of epoxy to each surface then add a slightly thickened coat if you suspect any irregularities in the joint. Place the top panel on so that the joint is perfectly aligned. Make sure the

# Elements of Planking

By Warren Jordan  
Jordan Wood Boats  
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edges of the two panels are a continuous, perfectly straight line, then clamp or temporarily nail the panels to the work surface.

Spread wax paper along the top of the joint. Lay a 2"x6" pressure block atop the joint and drive screws through the block, through the glued scarf joint and into the work surface. Use enough screws to provide even, firm pressure, but avoid excessive pressure that could squeeze too much of the glue out. Allow time for complete cure of the glue (overnight should do) before moving the panel, then remove it from the table and sand smooth. Holes caused by temporary fasteners can be filled with thickened epoxy.

You don't need a continuous wooden bench to make scarf joints. You can lay down some 4' long 2"x4" boards to hold the panels level and off the floor. A 4' long 2"x8" will work for a backing board at the scarf.

### Butt Block Joint

The butt block joint is another way to make long plywood panels. It is done by simply butting two panels together end-to-end and backing up the joint with a piece of plywood, epoxy-glued and screwed to the panels. Butt joints are easier to make than scarfs, but because of the added thickness at the joint, they tend to show a flat spot when bent. For this reason it is best to confine their use to flat areas of the hull. The butt block should have a width about 16 times the thickness of the panels, but never less than 6" because it should be fastened to each panel with at least two rows of screws.

The butt block is usually the same thickness as the plywood panels being joined, so for thin (1/4") planking you should drive long temporary screws through the joint into a backing piece. After the glue is cured simply remove the backer and fill the screw holes with thickened epoxy. With thicker panels the screws can be permanent. To add strength and to keep the joint from showing, fiberglass tape set in epoxy should be added to the opposite side.

The butt block joint can be assembled either before or after the plywood is attached to the hull, and may be made up from either full plywood sheets or panels cut roughly to shape. Besides not having to handle long sheets of material, an advantage to joining the panels on the boat is that it is much easier to fit the butt blocks around the longitudinals.

You simply install the first panel, fit the butt blocks between the longitudinals, then install the second panel.

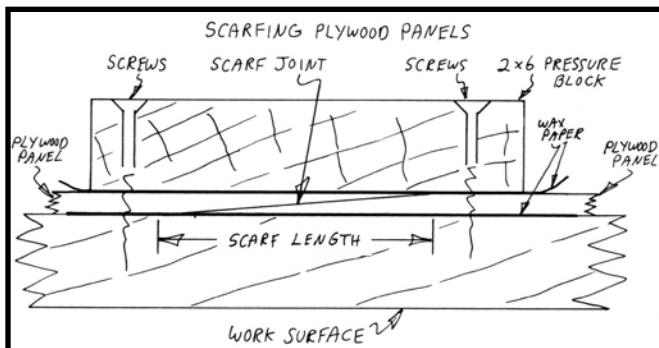
In order to provide continuous watertight backing for the hull joints, the butt blocks need to fit tightly against all longitudinals, but for water to effectively drain to the lowest point in the boat for efficient pumping or bailing, there need to be limbers or waterways alongside the keelson and bottom battens. For this I use a modified butt block. It fits tightly to all longitudinals, but the top is tapered to 1/8" thick starting near the ends. This provides a reasonably effective waterway while still backing up the joint.

### Sides First

Most sheet plywood hulls are planked sides first. Start the planking process by holding the panel against the skeleton for a rough fitting. Mark the perimeter of the framework on the panel, then remove and cut it roughly to shape, leaving extra plywood all around. This process breaks the panel down into a much more manageable size for the final fitting. Replace the panel on the framework, and supporting the ends, temporarily attach it with several nails or screws, starting with one at the midpoint. These fasteners hold the panel solidly for marking and will be used to align the side in its correct position for the final installation. Now you can get a more accurate outline of the plywood side by precisely marking on the inside of the panel: the chine line, transom line and stem line. Finally, transfer the sheer location from the frames, the stem and the transom onto the panel.

Remove the panel, then bend a stiff batten through these last points and mark the curve of the sheer. Cut out the panel, leaving 1/4" at chines and ends to trim, then, after checking for fit on the opposite side of the framework, use it as a pattern to mark and cut the second side. Coat all framework surfaces liberally with glue, then using the initial fasteners to align the panel, install the remaining fasteners. Work quickly so the glue doesn't start to harden before the panel is completely attached. Before installing the second side you will need to plane the overhang on the stem back to the stem face.

For boats planked with pre-cut side panels the order of procedure is a little different in that you use the layout included with the plans to establish the panel shape (see chapter 6, "Panel Layout"). This is a very accurate method because the edge of the plywood represents the actual reference or baseline of the scaled drawing, and the ends of the plywood panel represent the 90° perpendicular references. To duplicate the scaled drawing, mark off stations along the baseline at



**Table of Size and Spacing for Wood Screws**

Plywood thickness	To Stem & Transom	To Keelson & Chines	To Frames & Battens
1/4"	1" x #8 spaced 2"	3/4" x #8 Spaced 3"	3/4" x #8 Spaced 4"
3/8"	1 1/4" x #8 spaced 2"	1" x #8 spaced 3"	1" x #8 spaced 4"
1/2"	1 1/2" x #10 spaced 2"	1 1/2" x #8 spaced 3"	1 1/2" x #8 spaced 4"
3/4"	2" x #12 spaced 2"	2" x #10 spaced 3"	2" x #10 spaced 4"

identical positions to those on the drawings. With a framing square, extend lines from those points perpendicular to the baseline far enough to include the height of the side at each point. Mark the offset distance along each perpendicular, then bend a wooden batten through all the points, tack it down and draw a line.

Next, draw in the lines representing the transom and stem. If the chine and sheer are both curved lines you will mark offsets for both, but if either of them is a straight line it is represented by the edge of the panel and you will only have to offset and mark one line. Be sure to mark any reference lines that will help position the panel on the frames. Cut out one side panel, leaving ends a little long to allow for any error in set up. Check the panel for fit on both sides of the boat, making any minor adjustments so it lines up perfectly with the bottoms of the stem, frames and transom, then mark and cut the ends, leaving 1/2" excess to trim. Use this side as a pattern for marking the other side but be sure to reverse the pattern (use the flip-side) so the best surface of the plywood is the outside on both sides of the boat.

To attach the sides, first line up all reference lines on the side panel with their corresponding locations on the skeleton making sure that the inside corner of the side is exactly level with the corners of the frames. Temporarily attach the side to the middle frame with one nail driven only part way. Wrap the side around to the stem and transom and check to make sure the bottom edge of the side lines up perfectly level with their bottoms. Drive temporary fasteners into the stem and transom. These will help to line up the sides for permanent installation.

When satisfied with the fit, remove the sides and coat all framework surfaces liberally with glue, then using the initial fasteners to align the panel, install the remaining fasteners. Work quickly so the glue doesn't start to harden before the panel is completely attached. Before installing the second side you will need to plane the overhang on the stem back to the stem face. Note: In boats with pre-cut side panels, if inside chines are specified, they are installed after the sides are attached, so there must be no glue or fasteners in the chine area of the frames. (See chapter 9, "Fitting Chines")

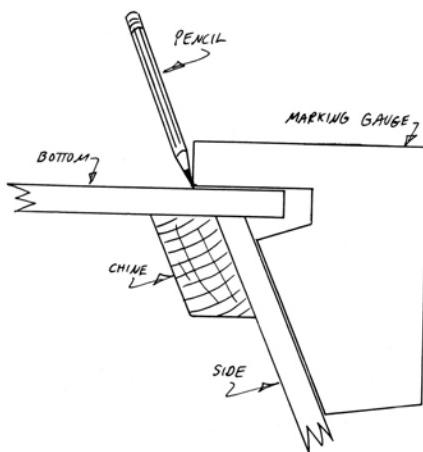
#### **Bottom**

The bottom of the framework has already been faired in preparation for installing the longitudinals, but now you will need to trim the bottoms of the side panels in preparation for the bottom. This is also a good time to do a final careful fine-tuning of all framework surfaces to make sure there are no imperfections.

Fit the bottom panels just like you did the sides: Lay the bottom panel on the framework and mark the perimeter. Cut it out, leaving extra all around to trim, then re-check for accuracy, installing nails or screws to align it for final attachment. Installation of the bottom is the same as for the sides. After the glue dries, trim the bottom panels flush with the sides.

#### **Marking Gauge**

Because of the side/bottom angle it is easy to accidentally drive a fastener through the inside of the chine. A marking gauge like the one below is easily made from scrap plywood and takes the guesswork out of positioning fasteners.

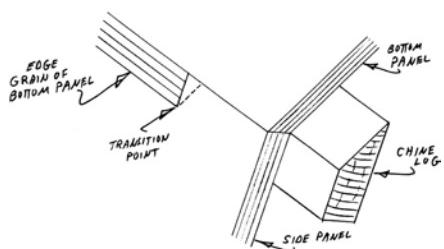


#### **Transition Joint**

For boats with flat or shallow V-bottoms, the bottom planking can overlap the side planking for the full length of the chines. In deeper V-bottom hulls, however, as the angle at the chine increases as you approach the bow, more and more end grain of the bottom panel would be exposed when trimmed flush with the sides. This becomes a real problem for durability and finishing reasons, so at some point the lap joint should end and turn into a butt joint. There is no hard and fast rule for this location; just when the amount of end grain becomes too great.

Forward of the transition point, the side panel is carefully fitted to the side/bottom dividing line of the chine, and the panel edge is cut at 90°. Aft of the transition point, the side panels are faired flush with the chine bottoms as in the rest of the bottom. The bottom panels are then painstakingly fitted to butt with the side panels forward of the transition point, and left to overhang the sides aft of the transition, to be trimmed flush with the sides after installation. Because of the meticulous fitting required for the transition joint, and the importance of accuracy, this portion of the sides and the bottom should be fastened first when installing the panels.

Note: Near the bow, where extreme bending is sometimes required, you can apply a towel soaked in hot water to the outside of the panel to make it more flexible.



#### **Fastening Plywood Hulls**

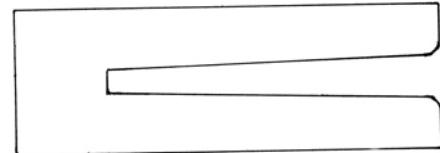
For fastening plywood planking I prefer to use silicon bronze wood screws throughout, with the exception of frame gussets, transoms and other non-stressed areas. In those places I use silicon bronze ring shank nails. When using nails instead of screws, keep in mind that nail diameters will likely be smaller than screws so you will need to space them closer to get the same strength.

Screws should be driven just enough to compress the plywood under the head, making a shallow countersink to be filled with putty. Never countersink so far that you break through the face ply. Nails should be driven

flush with the surface, then set slightly and puttied. For fastening in hardwood, rubbing screw threads across a bar of paraffin reduces binding and broken screws, but if broken screws continue to be a problem you should drill slightly larger pilot holes.

#### **Traditional Lapstrake Planking Tools**

You'll need to gather a few special tools for planking a lapstrake boat, including a light ball peen hammer for riveting, a backing iron for backing up rivet heads while peening, a rove set for driving the roves onto the rivets (see tools chapter), a rabbet plane for cutting the lap gains, and clamps. Not ordinary clamps, but ones capable of pinching the planks together at the laps for fitting and fastening. There are commercially produced clamps available, but you can make your own perfectly serviceable lap clamps from scraps of 3/4" plywood. They are free for the making, and can be produced very quickly in any size and quantity required. Just cut the plywood into a horseshoe shape, with jaws long enough to reach the lap, and a span just wide enough to pinch the planks together at the lap. Make sure all corners and edges of your plywood clamps are well rounded so they don't damage planks. Wedges driven between the plank and jaw tighten the grip and make these clamps nearly universal in application. You'll also need enough bar or pipe clamps to hold the plank to the molds while fitting.



#### **Making Long Planks**

It is always preferable to use one-piece planks, but in cases where your planking stock is not long enough, or the curve of the plank is wider than your stock, you will need to do some splicing. Planks are spliced with a scarf joint, just like those used in plywood planking, with the same 12:1 ratio of scarf length to plank thickness. The only difference is that you will not be working with perfectly straight-edged stock so you'll have to lay out the bevels on all edges of both parts so when planed, the wedge shapes are a perfect match. Use your spiling batten to align the two parts. Use epoxy glue and light clamping pressure so you don't get a "dry joint". Roughen the mating surfaces a little for better glue adhesion and allow plenty of time for the glue line to cure before flexing.

#### **The Planking Process**

Before starting the planking, mark the positions of all the frames on the keel or keelson. These marks will be advanced up to each plank as it is installed but you will not put fasteners in these locations. At this time you are only interested in accurately locating the lap fasteners that you will install between the frame positions as planking progresses, since they must be equally spaced for maximum strength and uniform appearance. The frames will be located on your marks and fastened with a rivet at each frame/lap crossing after planking is completed.

#### **Order of Procedure**

1. Spile, fit and fasten plank #1.
2. Spile to that plank to get the shape of plank #2.

3. Fit and fasten plank #2.
4. Repeat until planking is completed.

### Making the Plank

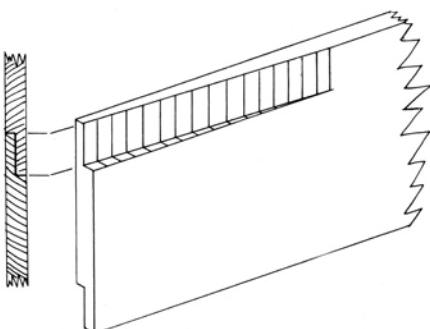
After spiling, transfer your information from the spiling batten to the plank stock. Use a fairing batten to establish the profile shape, then cut out and smooth all edges. It's best to use planking stock that is thick enough so that you can now split your stock in half edgewise and plane to thickness, resulting in two identical planks; one for each side of the boat.

### Fitting Laps

With a pencil divider set to the lap width, scribe the lap line the full length of the previously installed plank. This is the distance the next plank will overlap it. The amount of lap bevel changes along the length of the lap, and allows the planks to conform to the rounded cross-section of the hull. Usually, all the bevel is cut in the top outside of the underlying plank and is done after the plank has been fastened to the boat. Cut the lap bevel for a short distance at each mold, gauging the amount of bevel required by holding a straightedge against the next plank mark on the mold; the straightedge representing the inside face of the overlapping plank. Carefully trim the lap until the straightedge lands flush across the bevel while contacting the plank line above. Do this at each mold, then bevel the sections between the molds, using your eye to get the sections true and fair.

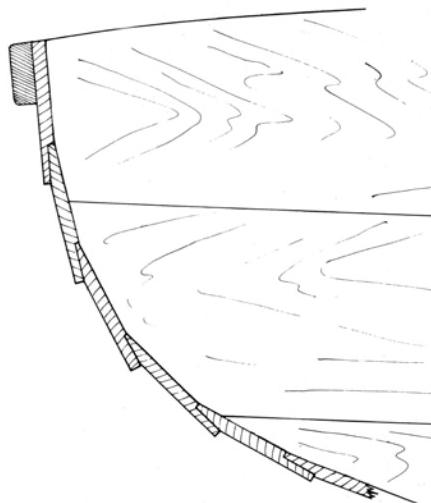
### Lap Gains

In order for the planks to land flush on the transom and stem so those areas can be made watertight, they need to have lap gains at their ends. These are basically ship laps and are cut only in the ends of the planks, both fore and aft. They range in length from 12" to 24" with shorter gains used in light, canoe-style boats, and longer gains for heavier planks and fuller-ended boats. The idea is to make a gentle transition from regular plank laps to the full ship laps at the ends. At the stem, and flat-sided transoms, since there is very little curvature, this is done by simply cutting matching rabbets on the top of the underlying plank and underside of the overlapping plank using a rabbet plane, and straightedge fence. The rabbets start at the surface and increases to half the plank thickness at the ends. When the planks are mated they form ship laps at the ends.



The same idea applies to the lap gains at the transom, but since there is great curvature in some transoms, the geometry of the rabbets varies from plank to plank. For this reason it's a good idea to mark and cut the plank landings and their bevels on the transom edge one plank at a time, as planking progresses. The diagram showing the transom and plank

ends should help you visualize the geometry involved there.



### Installing Planks

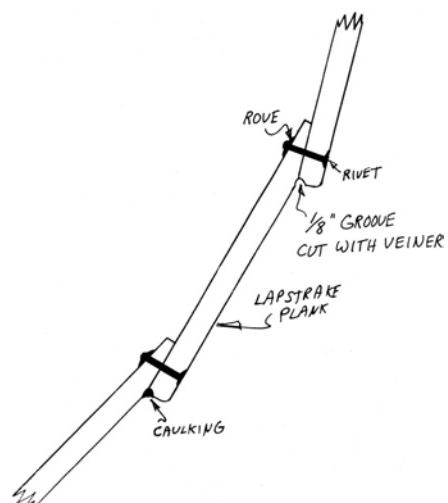
After careful fitting of the lap and gains you are now ready to install the plank. Secure it in its position on the previous plank with plenty of clamps. Start fastening (riveting) the plank at the middle and work toward the ends. That way there is less chance of building in stresses, and it's easier to get the plank to lay naturally in its intended position. After sealing and fastening at the stem and transom, leave some lap clamps on near the ends until the plank takes a "set" so there will be less strain on fastenings.

In areas of great twist (mainly the forward ends of lower planks), you may need to use a hot water soak to make planks limber enough to fasten without splitting. Clamp the middle part of the plank to the molds. Wrap towels around the first 3'-4' of the end, then pour boiling hot water over the padding, wrap with plastic and wait a half hour or so. Be sure to support the end. When the plank is limber enough, clamp it in place but don't fasten until it is dry and the shape is set. Pad the clamps so they don't dig into the softened wood.

Note: Make sure to keep the planks even from side to side. This is especially important at the stem where an uneven planking job really stands out.

### Sealing the Laps

Even perfectly fitted laps will develop leaks after years of hull flexing, so many builders use sealants to guarantee the watertight integrity of lapstrake hulls. The caulking is done in two parts. After the middle section of each plank is fastened and any fine tuning of plank gains is done, apply sealant to the gains and plank ends before fastening them. The second part is done after the planking and framing is completed and the boat has been turned to the upside down position. With a 1/8" gouge, cut a caulking seam the length of the lap and a few inches into the hardened sealant at the gains. Then run a full-length bead of caulking into the groove, smoothing it off by running a finger along the length of the seam.



### The Cross-Planked Bottom

For traditionally planked flat-bottom boats, a cross-planked bottom is usually specified. It is also a good choice for some plywood boats, particularly for ones intended for rough use where a plywood bottom would be subjected to excessive wear. The cross-planked bottom not only stands up well to rough use and beaching, but because of its great strength and stiffness, often, no transverse frames are called for, resulting in a clean, uncluttered interior. And, although the cross-planked bottom is usually somewhat heavier than a plywood bottom, some weight is saved because gratings or floorboards are not needed to protect the inside plywood surface.

Some woods that have proven to be good choices for the cross-planked bottom are white cedar, red cedar, Alaska yellow cedar, Port Orford cedar, cypress, Douglas fir and yellow pine. Although white cedar and red cedar are rather soft and therefore more vulnerable to wear in boats that will be beached often, the softer woods work well for a bottom constructed without caulking. Because of the risk of leaks, I don't enthusiastically recommend this method, but it works like this: the bottom boards are installed very tightly edge-to-edge, with no caulking seams. The seams tighten as the boards compress together when wet, but stay watertight when they spring back when dry. The traditional, time-tested caulked-seam bottom is described below.

The bottom planking is the last step in hull construction, following installation of the side planking and chine logs. Before the bottom is installed, however, the bottoms of the chines and sides must be dressed perfectly flat from side to side. A straightedge laid across the bottom from side to side at any point must touch all surfaces evenly for perfect wood-to-wood contact. Plank widths should be about 5" but may range between 4" and 6". Wider boards tend to warp and cup when swelled. Also, keep in mind that the seams act as expansion joints: the fewer the seams (boards too wide) the more they will open up and possibly leak when the boat dries out. Narrower boards require more labor for installation and are not as stiff as wider boards. Stock doesn't need to be perfectly clear. Some tight knots are acceptable and make for a tougher bottom.

The bottom boards need to have caulking seams planed into their adjoining edges to insure watertight integrity. These seams

should be wood-to-wood tight ( $90^\circ$ ) for the bottom  $1/4$  of plank thickness, widening to about  $1/8"$  at the surface for each  $1"$  of plank thickness. One-half of the bevel is usually taken from each side of the seam. For example,  $1"$  thick boards will have edges beveled  $1/16"$ , resulting in a  $1/8"$  wide caulking seam between two adjacent boards.

One way to install the bottom is to simply fasten the first board (at the stern) to the chines, transom, keelson and bottom stringers, then continue to tightly wedge and fasten each board in place against the previous one until the bottom is completed. Another way, that is more likely to produce an extremely tight, leak-proof bottom is to install boards in groups of 5 or 6. Each board of the group is set up tightly against the previous one, with wedges and clamps, then fastened. A space of one plank width is left between the groups. This space allows bar clamps to be used for squeezing the boards together as they are installed. The spaces are slightly narrower at one end than the other (about  $1/2"$  difference) and will later be filled by tightener boards that are cut to the exact taper as the spaces, but are longer than necessary. These tapered boards are installed all at same time after driving them solidly home with a hammer, resulting in an extremely tight bottom.

Where the bottom is too narrow for cross planking (at a tightly angled bow, for example) a short length of board with grain running fore-and-aft is often used. For wider angled bows, this can be made up of two pieces, joined on the centerline and installed with the wood grain running parallel with the sides.

Bottom planks  $5"$  wide are usually attached with 3 fasteners, where they cross chines and bottom stringers.  $4"$  wide boards take 2 fasteners. My first choice for fasteners is bronze wood screws, counterbored and topped with wood plugs.

The bottom boards are laid in a premium quality, flexible bedding compound applied liberally to the bottoms of the chines and sides. Sometimes that is all that is required in this area but to be sure of a watertight seal, before installing the bottom boards, you can plane a bevel for a caulking seam on the bottom edges of the side planks. This seam is caulked after the bottom boards have been installed, trimmed flush with the sides, and the bottom seams caulked. Caulking cotton is set solidly into all seams (but not driven through to the inside) with a caulking iron and mallet, to about  $3/16"$  from the surface. The seams and caulking are then painted with thinned oil-base exterior primer or paint. After drying, seams are filled with a flexible, non-hardening bottom seam compound.

The last plank fastened to the boat is called the whiskey plank by traditional boat-builders. It marks the end of the planking process and is usually followed by a celebration. CHEERS!

## Backpack Boat

By Paul Butler  
Reprinted from *Epoxyworks*  
Journal of Gougeon Brothers  
WEST System®



This 23lb, 5' long boat can be backpacked, trailered or pulled over backcountry trails to access those deep holes. In remote lakes where larger boats never go. Adjustable straps can be rigged to a daypack or packboard to comfortably carry the boat, or the dual skegs provide an axle location to mount wheels for pulling on rough trails or trailering behind a quad.

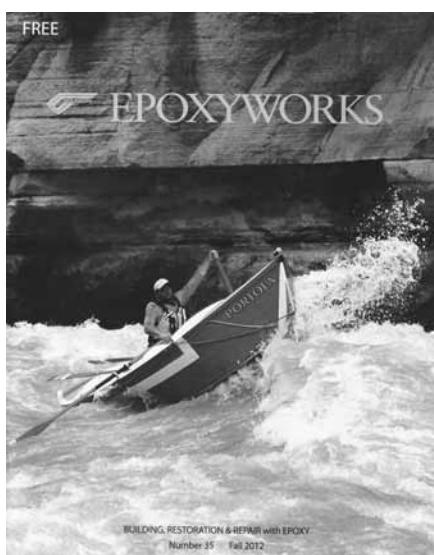
Seating is adjustable fore and aft atop the compartments or in more stable relaxed position in a canoe chair placed on the bottom. The wide beam boat will support an average size adult on flat water and can be paddled facing forward, or rowed facing aft with 3' oars. A double-bladed kayak paddle also works well, or the smallest of trolling motors. The lightweight boat is an easy car-topper or can be hauled in the smallest of trucks.

Plywood and epoxy facilitates lightweight construction and compartmentalization, and no critical woodworking skills are required. The bottom is sheathed with glass and graphite and seams are covered with glass tape. The hull interior can be left open

or the optional side compartments provide hull support, accessible dry storage and the safety factor of emergency flotation.

Only simple woodworking tools are required including jig saw, drill, block plane and a few clamps. Rectangular scrapers are used instead of sandpaper when finishing sealed surfaces. Aside from hardware attachments, no metal fastenings are required in the boat.

Building plans include 22 pages of photos, sketches, discussion of options, materials sources and step-by-step instructions, all written for amateur and first-time builders. Size can be increased a small amount by scaling up the patterns using graph paper. Plans are \$42 from: [butlerprojects.com](http://butlerprojects.com), or from Butler Projects, PO Box 1917, Port Angeles, WA 98362.



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I got married in the Navy and our first home was an apartment in Maryland. The route home from Navy Security Group Activity, Ft. Meade was to leave the base on Rockenbach Drive and continue until I saw a sign saying "Apples for Sale", take a right turn, go to the house with a picket fence and take left, travel to the T intersection and take a right, take the first entrance to a 4-lane highway and immediately take the first exit. After a left turn, I could see the apartment complex and could struggle home from there. I always feared that the "Apples for Sale" sign would be taken down and I would never get home again. To this day I have absolutely no idea what roads I was on.

Maps, interestingly, have only been around since the early 1500s. Prior to that time people pretty much travelled like I did in Maryland. Of course people did not venture far from home since the vast majority of folks were peasants who had no reason to leave. Travel was virtually limited to about as far as one could walk and return the same day. With a horse one might be able to venture as far as 20 miles from home. Even into the 20th century that 20 miles was about all one could do without taking a train. My grandfather set up his first dental office in two towns about 18 miles apart but had to take the train each day.

Mercantilism did not truly become a large concept until well into the 14th century. The only way for goods to move from the East to Europe was via the difficult land passage around the Mediterranean and through the deserts of the Mideast. Camels, donkeys, horses pulling wagons loaded with spices, silk, and other desirables trekked through steep mountains, deep valleys, sand, forests, and along beaches. Boats, with their limited range and limited steering, were never considered a cargo bearing possibility.

Merchants understood that the transportation time consumption could be measured in years. Items hauled from China to Italy were constantly stolen by robbers, lost due to climactic issues, or used as ransom for kidnapped workers. Virtually every potentate, king, prince, emperor, or armed thug along the way expected some tribute in the form of money, gold, or goods. In an era where salt was literally (not figuratively) worth its weight in gold, spices and silk multiplied in value exponentially as these goods moved farther west.

Marco Polo's courageous meandering in pursuit of adventure marked a colossal alteration to the thinking of humankind. His intrepid journey brought to Europe's attention the concepts of silk, spices, unusual animals, strange people, and riches beyond the imagination of monarchs, kings, and popes. Polo also brought back highly imaginary stories of beasts and inhabitants so bizarre that the simple Europeans were enthralled.

300 years before the invention of the printing press, Polo's stories were passed by word of mouth especially along the coasts of the Mediterranean Sea where fishermen, then as now, scuttlebutted the stories with characteristic embellishments passing as God's own truth. Within a few centuries, an actual trade route was established and the wealth of the East slowly moved west.

Directions for travel on these byways were similar to those I used to return home: head east, cross some rivers, climb some mountains, struggle through deserts, and find unique appearing folks with an unusual language and clothing and buy everything you

## The Age of Discovery

### Part II

By Stephen D. (Doc) Regan

can carry. The return trip was merely the reversal of directions with sincere prayer for not dying from murder, drowning, starving, dehydrating, or other natural causes in a period where life expectancy was a slim few decades. Survivors, however, would be rich beyond dreams.

Wealth in the Age of Discovery rapidly brought forth a concept of economic status change. Prior to this, those who were born rich and royal died the same. Others were doomed to short, difficult lives of subsistence living. There was not much one could do about this. The rich were rich, the poor were poor and that's the way it was. Period.

Polo brought the first indication of upward mobility, a process that did not reach its zenith until the 1950s in the United States, almost a thousand years after his journey. Risky people with a modest level of fiscal support could multiply worth of goods by factors of 100. This was income beyond comprehension.

Henry the Navigator of Portugal was neither a great sailor nor navigator; but he did like spending money he did not possess. What Henry did have was a clearheaded thought about the nature of the universe and how it could inflate his pocketbook. His captains headed south looking for gold, silver, and other items that would fill his coffers. No one had really paid much attention to Africa, so Africa was a great place to start. Furthermore, as posited in the previous article, new technology in boat building and sails provided some means for this exploration. His discovery of the Canary Islands, Cape Verde Islands, and the southward current of the Gulf Stream after it circled the Atlantic gave rise to Christopher Columbus's idea of sailing west to get to the east. Incredibly, Pliny the Elder had written an essay about the Cape Verde Islands but his writings never made it beyond the study of a handful of scholars.

What Columbus did not have was a chart or map. All he had was the plethora of stories heard along the docks, shipyards, and taverns. Even elements of charting such as the definitions of circle, line, axis, pole, horizon, angle and the like were known only to few academics. It was not until 1507 that the *Introduction of Cosmography* was printed so that the common seaman or landsman could learn them.

It is noteworthy to realize that exploration, economic mobility, the seeds of democracy, religious revolt and reformation, physics and new life styles all happened simultaneously and dependently on each other. The printing press allowed maps to come into being. Exploration required maps. Maps required the best mathematical knowledge of scholars. Sailing captains needed maps, understanding of the world, and mathematics to understand global sailing. In short it was an amazing period.

Martin Waldseemueller, a German, attempted what is considered the first map. Using knowledge of mathematics and physics, he agreed with scholars about the size of the globe. Calculating distances by using the logs of various explorers that provided rough speed and direction of ships on a daily basis,

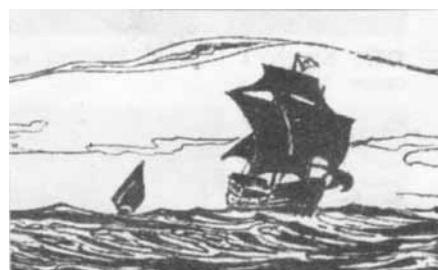
Waldseemueller attempted to draw a rough picture of what the globe must look like. He was convinced that the world was a globe based on John of Holywood's works. The good German also was a good artist with a sense of proportion, perspective, and angle. Rather remarkably he did not know much about Columbus but was familiar with many other explorers including Balboa's reaching the Pacific. In 1507, the year that Columbus died, Waldseemueller made the incredible statement that the New World must be a continent completely surrounded by water!

The incredible first map is unbelievably recognizable. Waldseemueller introduced some basics that continue today, such as making the top of the map North and established other standards for map making. He drew a very accurate version of Europe, Africa, the East (although his understanding of India is skewed), and North American and South American east coasts. Published in 1515 it gave the world its first image of the globe. Unfortunately, Columbus went to his grave convinced he had found his way to China, while Waldseemueller subscribed to the views of Amerigo Vespucci who appreciated that the Columbian discovery was not the Far East but rather an entirely new continent that was amazingly long. Waldseemueller thought Vespucci deserved the honor of having this continent named for the himself.

Living in the time of Leonardo da Vinci, the intrepid map drawers gained from his insight on linear imaging. They also now had available the mathematical formulas needed to proportion their drawings, another artistic concept new to the era.

Mapmakers and explorers finally took simple mathematics and developed the quadrant, a forerunner of the sextant, and commenced using geometry to study angles of stars. One must remember that this generation of people was the first to own books. The printing press and evolution of books allowed the common person or sailor to learn from them the information that led to modern navigation. Books allowed an explosion of knowledge that impacts sailing even today.

By the 1950s maps were given away free at service stations. Every elementary school student possessed map-reading skills, in fact, according to the Iowa Test of Educational Development, a long regarded top assessment of knowledge with incomparable validity and reliability, 5th graders should have a solid foundation of map understanding and usage. How strange it is to think of the thousands of years seafarers went to sea with only a very vague knowledge of where they were going. How strange it is to think that merchants sent caravans thousands of miles without knowing what route was best. How strange it is to see the plethora components of knowledge all converge at the same time. Truly, this was the Age of Discovery.



## Sea Level Trends

NOAA provides us a great resource. While IPCC (Intergovernmental Panel on Climate Change) continues to forecast sea level rise of 3' this century, and a UK station (one site) reports 3' of rise in the past three decades, I prefer to look at actual data from a source I trust. Here is a site that has reliable data: [www.tidesandcurrents.noaa.gov/slrends/msltrendstablefc.html](http://www.tidesandcurrents.noaa.gov/slrends/msltrendstablefc.html)

It gives us feet per century of sea level change for well over 100 sites from Maine to Alaska and out to the Pacific islands, extending from the earliest reporting date at each site to 2006. The average rise in sea level is 6" per century. These data are skewed well into the latter half of the past century because the average age of reporting stations is only about fifty years. Therefore, it is safe to say that for the most recent fifty years the average rise in sea level has been at a rate of 6" per century. Hard to imagine how this is supposed to increase by six times the rate for the next century. I would much rather make an extrapolation from measured values than rely on a computer generated hundred-year projection, especially when the computer program can't even "predict" the past decade accurately when fed historical facts in a back check.

Some interesting variations show up when we look at the details of this data set. From New Jersey to Virginia we see much higher sea level rise, and in Washington state and Alaska sea level is marked as falling. A bit of geological study gives the answer. The shores of New Jersey down to Virginia are slowly sinking, which makes the locally measured sea level appear to rise more quickly. Conversely, Washington State and Alaska are being thrust upward by tectonic plate movement, making their locally measured sea level change appear negative. If geologists in the UK take a careful look at the area where sea level appears to have risen 3' in thirty years, they will find that this recording site sits on sinking land.

We are indeed experiencing Global Warming, but not at anywhere near the rates shouted by the extremists. To get a balanced view we need to look at both sides of the arguments. This can be found by studying reports by the NIPCC (Nongovernmental International Panel on Climate Change). It is amusing reading about the snowball fight between IPCC and NIPCC over the past decade. It isn't so amusing to think of the billions of dollars being spent on this fight. Earth has warmed many times in the past, for example a period 120,000 years ago when sea level rose to a level about 20' above what we have today. There were people around then, but not many and they didn't know much about fire. People are probably adding to the warming this time, but our contribution seems to amount to perhaps 5-10% of the process.

## Latitude Sailing Navigation in 1492

Sailors had no good way of finding longitude back then, but keeping track of latitude was well established. It was based on holding a stick at arm's length toward the North Star and marking the distance on the stick from the horizon to the star. This distance would change between summer and winter, and the sailor would need to mark the highest and lowest points on his stick before leaving on an off-

## Some Speculations

By Nick Fast

shore voyage. Knowing the date, he could then estimate where on his stick he should hold his horizon when sighting the North Star. When returning home from his voyage, if he found the star higher than it should be he needed to sail farther south to "bring the star down". Or, if the star was too low, he needed to sail north to raise it.

This technique was in common usage among the Norsemen 500 years earlier. If they left Bergen, Norway and sailed west, they would come to the Shetland Islands in a couple of days. Making the choice to go north or south of the islands and then keep going for weeks, they ended up at the southern tip of Greenland, which was a favorite destination for the Norse in 1000. Having made landfall, they followed the coast to the left to their intended harbor. If they wished to visit Iceland on the way, they needed to match sticks with someone who had been there before in order to get the correct star height. Leaving from Trondheim, Norway brought them directly to the south coast of Iceland.

And those navigators who left Gibraltar and sailed west, where did they find land? Roanoke Island, North Carolina. Sound familiar? Had they sailed south on leaving Europe, down to the Canary Islands, a very popular trip in those times, and departed from their south end, then made their trip west, landfall would have been at Spanish Cay at the north end of Abaco in the Bahamas. Miss by one degree to the north and they'd come ashore at Sebastian Inlet in Florida, but miss by a little more than one degree to the South and they'd find themselves at San Salvador Island in the lower Bahamas.

Did Columbus know where he was going when he left on his trip of 1492? He had good reason for his confidence. He spent the summer either one or two years earlier visiting Iceland where there was one of the world's best collections of North Atlantic charts and maps of bordering lands. Iceland had been settled about 500 years earlier by a large group of wealthy and well-educated Norse who had been driven from their homeland by a rather nasty new king who, when they objected to his ways, gave them the choice of going to Iceland or going to jail. Their Icelandic colony thrived, and for many years, they sent out summer exploring voyagers who went south, probably as far as Virginia. Columbus knew India wasn't his destination.

## Our Earliest Explorers

No doubts about it, Native American Indians were the first explorers of North America. It appears that they arrived by crossing a land bridge between Russia and Alaska at the end of the Ice Age before sea level had risen to today's height. That would be about 12,000 years ago. We have no record of new arrivals until about 1,000 years ago when Norse sagas described visits to Iceland, Greenland, and Vineland. The sagas were oral history, passed along from one professional storyteller to the next until collected in written form some 300 to 400 years later. This appears to have been a relatively accurate process since many sagas tell the same story from different points of view but with facts, figures, and dates essentially in agreement.

The Norse explorers were operating from their colonies in the south of Greenland for about 300 years from 950 to 1250 AD. At the peak of this activity, they had established a satellite colony at what they called Vineland, which they described in some detail but did not give the location of with accuracy. Much later study gives high credibility to Watertown, Massachusetts as the site; a wide bay reachable by crossing a bar at high tide (Back Bay with a bar where the dam and lock are today) and then up a river (the Charles) to the head of navigation (where another dam is located). There are accounts of archeologists rodding the riverbank there and encountering stones approximating the outline of a Norse long house foundation. Concord is only 10 miles away, and that certainly connects grapes.

Using Vineland as a base, which appears to have had some year-round attendance, the Norse explored well to the south along the coast, with strong evidence of settlement at Newport, Rhode Island and weaker evidence as far as Saybrook, Connecticut. There are hints in the sagas of seasonal voyages farther south to Delaware Bay and perhaps Chesapeake Bay.

Some of the sagas note Indians describing an earlier visit by white men. Not all of the tribes encountered were friendly enough to have had this conversation, but many befriended the Norse. Who could these earlier white men have been? The Indian oral history was not sophisticated enough to establish a time line, so we don't have a strong indication of what century that may have been.

However, there is another side to this story. About 1900 an English professor of languages made an exhaustive study of native tribes along the East Coast from Panama to Florida. He found many instances of tribes speaking with definite Irish words, and grammar common to lower class Irish, as might be spoken by uneducated sailors. Here is the missing link. The Irish had a period of rich culture, including exploration, sometime between 500 and 800 AD. Unfortunately, there is little recorded of this period in Irish history, and we have no clue as to what type of boats were used.

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I have written in the past about the problems of trying to use old and new technology together on a project. The incompatibility of some tools was brought home again the other day when I tried to use my heavy-duty cordless drill to drive a 4" circular saw blade in its special holder. The holder looks like a small circular saw with a place to attach the drill to turn the blade. The cordless drill is of the new design with the chuck designed for the  $\frac{1}{4}$ " drill base.

The saw's drill attachment is designed for a chuck with a key. There was no way to tighten the chuck on the cordless drill sufficiently to turn the circular blade to cut the bush stems that needed to be lowered. I strung out the extension cords and got out my reciprocal saw to cut the stems. It would have been much quicker if the cordless drill had had a chuck with a key.

A few years ago, we had the remains of a trimaran in our yard at the coast. I borrowed a reciprocal saw to work on cutting it up. A neighbor helping me noted I could get my own reciprocal saw for a low price at any of the pawn shops. I did some checking and found a reconditioned reciprocal saw for a reasonable price with a warranty at a local pawn shop. In fact, there were a number of reconditioned tools available.

I was installing strips of wood on the rebuilt ramp at our dock when a couple of the galvanized nails went "overboard" in about 3' of water. I could see them on the silt that is the top of the muck of our canal bottom. Rather than leave them there to slowly sink out of sight, I went and got my magnet with its 6' line out of the car.

The magnet picked up the nails quite nicely. My magnet is from a radio speaker and has a hole in the middle that provides a place to attach the cord to let me lower it into the water or drag it across the grass to retrieve metallic objects lost along the way (like a drill bit that fell out of the drill because the chuck was not tight). One can spend a good deal of money for a magnet or salvage some from discarded speakers. I have three of them. Each is a different size, which lets



## From the Lee Rail

By C. Henry Depew

me retrieve things that might not otherwise be recoverable.

A neighbor at Shell Point is getting his boat ready for a two month cruise. A problem developed when one of the pennant lines broke just below the pulley two-thirds up the mast. I offered him the folding mast steps that came off the trimaran I salvaged, but he elected for a bosun's chair. However, neither he nor I have one.

So we set out to make one out of a 2"x12" and some line. I gave him a piece of lumber leftover from my ramp project. It would not be fancy but it would allow his wife to winch him up the mast to get to the broken line. For some reason, my suggestion of hoisting an aluminum extension ladder up and then climbing the ladder was rejected.

Quite a while back I wrote a note about using a heavy duty, sealable plastic bag that would fit in a pocket as my "ditch bag" for my wallet, keys, change and the like. Soon the Editor sent me a sample "Workout Wallet Set" from StoreSMART.com to try out. This sealable plastic envelope is large enough for an ID, a couple of credit cards, some currency and one or two keys. It has a lanyard and is quite well designed. It would not hold my wallet but it does meet the minimum requirements for a place to put the "important" stuff and keep it with me.

I showed the item off at a yacht club meeting and found out there are a number of such products on the market. It is nice to know, I can take "most of it with me" if I have to abandon ship, if I plan well ahead.

Most of us consider a dinghy as a small boat sometimes towed behind a larger boat. I

was reading a RV magazine while waiting at the dentist office for a checkup. One article that caught my attention was on the "dinghy" choices available and some of the considerations in making that choice. While I was wondering about a small craft being towed behind a RV, further reading found that, in RV terms, a dinghy (sometimes called a toad) is the vehicle towed behind the RV for use for local area transportation when the RV is parked. All this time I thought a dinghy was towed behind (or stored on) a larger vessel.

The May issue of *Sailing World* had a series of articles on racing handicaps for sailboats. While we have never raced off-shore, my wife and I have raced sailboats under various handicaps. The Midget Ocean Racing Class (MORC) was designed for boats over 20' and under 34' (or thereabout).

At one point in my life I was the station measurer for MORC Station 27, a regional MORC measurer, and the US "expert" on the Harmony 22 as far as the MORC rating went. MORC had a number of measurement requirements and the most troublesome was the weight of the boat. The boat had to be hauled out and then weighed in "full race" condition. This was an expensive operation and was one of the factors that led to the decline of our fleet.

We raced a number of boats under the Portsmouth Yardstick. My problem with that rating system is that the handicap number for a boat comes from some of the racing results of some of the best sailors in that boat in the country, and we "weekend sailors" simply have a major problem when compared with the much better sailors. Performance Handicap Racing Fleet (PHRF) rating information is interesting in that two class boats may have the same PHRF rating number but might have different MORC rating numbers.

I know this because I have copies of the old MORC certificates for these boats and know the current PHRF rating. The rating process may not be a true reflection of a given boat and crew, but may be the "best possible under the circumstances." That said, go racing and enjoy the sail.



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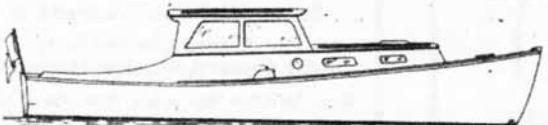
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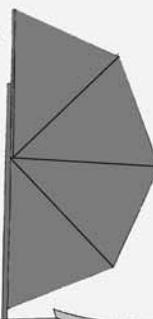
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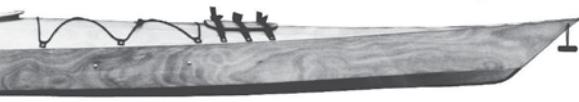
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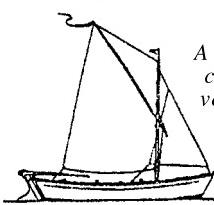


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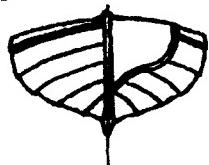
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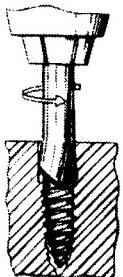
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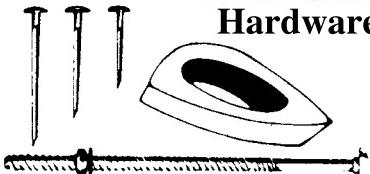
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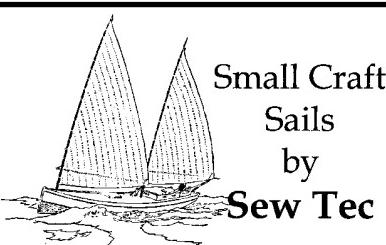


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**11'6" Classic Wooden British Heron Sailing Dinghy**, Jack Holt design. Maintained & ready to sail. Bottom fiberglassed by professional. Hard-chined, gunter rigged, no trlr. \$750.  
GERMAINE CONNOLLY, Springfield Cntr, NY, (315) 858-3128, germaine.connolly@fda.hhs.gov (8)



**Ken Bassett Design "Liz"**, 18' rowing shell. White cedar planks, cherry fit out. Incl Piantedosi Rowing Wing. New boat built by Sutherland Boat & Coach, '06, never been in the water. \$10,500.  
ED WIGHTMAN, Hammondsport, NY, (607) 838-3025 (8)



**19' Charles Wittholz Cat Boat**, custom built in 1995. Salt water resistant, welded aluminum hull. Wooden steering, compass, sink, stove, & head, not hooked up to tank. Skylight opening hatch, c.b keel, 10hp Faryman Diesel i/b rebuilt engine. Incl cabin seat cushions, gaff sail rig like new, never been wet. Interior & outside seating all wood finish. Full boat cover & sail cover. Also, tandem 4-wheel trlr. \$15,000 obo. Located at Lake of the Ozarks, MO.  
BOB HARKE, (636) 9280540. (8)



**17-1/2' Swampscott Dory**, traditionally built at The Landing School, Maine. Riveted pine strakes, removable decking (both painted); oak frames & rails, mahogany top strake, thwarts & transom (all finished bright). 3 thwarts, 3 row stations & stern bench locker. Handsome, roomy, extremely stable hull in gd cond. Should be painted & bright work needs varnishing. Incl 2 prs leathered spruce oars (8' Shaw & Tenny & 7' unknown make), custom cushions for thwarts & bench deck & trlr. \$3,000. Located in the St. Lawrence River Valley in northern New York. This boat has enjoyed Lake Champlain & loves the St. Lawrence River; it is a solid ride on any water.

SCOTT MILLER, Norwood, NY, (315) 384-4746, 112obrienrd@gmail.com (8)

**20' Alerion Express '97 Daysailer**, recent dark blue Awlgrip topsides w/white boot stripe. Recent Haarstick sails. Fully battened main & Harken furled jib. Min Kota electric motor powered by two solar charged, closed cell batteries. Fast, beautiful boat w/incl galv Triad trlr. Fresh water boat, currently sailing on St. Lawrence River. \$ 25,500.  
JIM KIDD, Yalaha, FL kidii@aol.com

**'56 Mirror Dinghy**, exc cond, 2 part LP paint on hull, interior finished bright. On new trlr, always stored inside. US\$1,450 obo.

DAVID WATTS, Fayetteville, NY, (315) 622-5093 home; (315) 449-4767 work, dw@twcny.rr.com (8)

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DOUG MAASS, Sleepy Hollow, NY, (914) 631-7541, doug@maass.org. (8)

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July 25-27 Skaneateles Antique Boat Show, NY \*\*  
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